

J. Richardson pinx.

G. Kneller sculp.

Daniel Turner
of the College of Physicians LONDON.

℞. *Libris Tho. Wright.*

THE

ART

OF

SURGERY:

In which is laid down

Such a general IDEA of the same, as is
founded upon REASON, confirm'd by
PRACTICE, and farther illustrated with
many *singular* and *rare Cases* MEDICO-
CHIRURGICAL.

In Two VOLUMES.

The FIFTH EDITION, Corrected.

By DANIEL TURNER, M. D. of the
College of Physicians in *London*.

Ὁ Βίος βραχὺς, ἢ ἡ Τέχνη μακρὴ, ὁ δὲ καιρὸς ὀξὺς,
ἢ ἡ πείρα σφαλερὴ, ἢ ἡ κρίσις χαλεπή.

Hippoc. pars primi Aphor.

VOL. I.

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MDCCXXXVI.





The DEDICATION
TO

Dr. Thomas Crow,
FELLOW of the COLLEGE of
PHYSICIANS in London.

S I R,



S I did my self the Honour
of inscribing your Name to
the first *Edition* of this *Trea-*
tise, so it is my Intention
the same shall be transmitted through
whatever *Impressions* it may happen
to undergo, that wherever it meets
with Entertainment, the Reader may
be appriz'd of the Value I have set
thereon, and how great a Pleasure I
take at all Times, more particularly
this present, to write my self

Your Friend,


as well as Humble Servant,

D. TURNER.





TO THE
READER.

HEN the first Edition of this Book came forth, a worthy Professor of the same Art being ask'd (as I have been informed) his Opinion thereof, was pleased to say more in its Commendation than behoves me to repeat after him ; but as to its present Fate, compared it to a Piece of Painting, that would be better esteemed when there was no more to be had from the same Hand ; intimating, as I take it, that in the Author's Life-time it would not have the Regard paid to it, as it might meet with after his Decease.

Now though I think my self obliged to pay an Acknowledgment to this Gentleman, for the Character he has been pleased to give it ; yet, I
A 3 believe,

To the READER.

believe, I need not inform him he was out in his Prediction, since I have lived to see it, and that in little Time, taken into the Studies, not only of those of the middle Form of Practice, but of the greatest Masters of the same Art, as well at Home as Abroad; and this truly has engaged me both to revise and correct, as also to make such farther Additions thereunto, as my Affairs would allow, which consist chiefly in a Collection of rare Cases, transcribed from ancient and modern Writers, placed under their proper Heads, together with whatever of like Kind has been transmitted to the Royal Society, taken from the Abridgment of their Transactions, by which the Reader will find much Pains and Labour, as well as Expence, saved him, in bringing every Thing curious under his View at once. Besides these, I have added a remarkable Case in Surgery of my own, printed some Time past, together with a Supplement at the Close of the second Volume to my Discourse of Wounds, regarding some of the most desperate, or such as by an Aphorism of the great Hippocrates have been generally deemed mortal; from whence it will plainly appear, that the same is to be understood, for the most part only, or generally speaking, in relation to some; whilst others, on whom the Sentence is pronounced as absolute, are found curable now with us, or, which is the same Thing, do admit of healing. Lastly, I have made some Remarks upon Dr. Harris's Dissertationes Medicæ Chirurgicæ;

TO the READER.

Chirurgicæ; particularly his thirteenth de Erroribus Chirurgorum, which the Reader will find placed at the end of the first.

I think I have no need to preface any thing as to the *Design or Reasons* for this Work, more than what he may be, or is already appriz'd of, in the former Impression thereof, unless, that as the Mistakes or Oversights therein committed were my own, in this, by a sort of Imputation, they may be look'd on as other Mens; I mean of those Gentlemen who had free Liberty given them to correct any such Errors, and to add what they pleas'd of their own, that might have been farther useful.

Since this has been omitted, though I have not the Vanity to think I can write any Thing that is perfect, yet will it serve to convince me, as it may also my Reader, that he who is not at Leisure to survey the Labours of another, is scarce likely to oblige us with any of his own; till when, or that some abler Hand will furnish out a compleater System, this of mine, I hope, will supply the Place.

The World, it seems, is very censorious, and Gentlemen are loth to venture their Reputation. I have indeed been told by one of these, that I did not thoroughly know it; but I would willingly convince that Gentleman, that I know it so well, as to despise the cavilling Part of it, and giving no just Offence to others, I shall not fear their Censure.

TO the READER.

I must own I have taken more Pains to know my self than the World ; and were I a compleat Master of that Knowledge, with so much of that of the great Being on whom I have Dependance, as more intimately concerns me, I dare say, when I come to leave the World, it will make no Part of my Repentance that I knew no more of it.

I have hinted this only as my Opinion, that no Man should be deterred from doing all the Good he can to serve his Fellow-Citizens, for fear some few ill-natur'd ones should find Fault with his Labours. But in this let every Man use his Pleasure, for my self, who (thro' much Study and Attendance upon the Sick, having impair'd a weakly Constitution) do believe I shall write no more ; yet I can say this, Quod scripsi, scribi me non poenituit ; and, I doubt not, it will be always a Satisfaction to me, that to the utmost of my Power I have endeavoured to serve, not only the present, but the succeeding Generation.



THE



THE
BOOKSELLERS
TO THE
READER.



HO' we have no need to say any thing to recommend this Work, which hath been so well approved by the most noted Practitioners of the same Art among us, yet we thought it not amiss, hoping the Author's Pardon for our so doing, to apprize the *English* Reader, what an Opinion some learned Foreigners have taken up of the same, into whose Language, if we are rightly informed, the said Treatise is now under a Translation, What we principally refer to, being the *Acta Eruditorum Lipsiæ*, where we find, soon after the Publication of the first Edition thereof, the following Account printed among their Transactions, viz.

Acta

The BOOKSELLERS

*Acta Erudit. publicata Lipsiæ, Calendis
Januarii, Anno MDCCXXII.*

ARS CHIRURGICA.

Autore Daniele Turner, Med. Londin. &c.

‘ **M**irandum omnino est, ex Anglis, paucos
‘ fuisse, qui solida Artis Chirurgicæ Præ-
‘ cepta, per Scripta publica exponendo, nomen
‘ suum a Mortalitate vindicarint: Cum tamen
‘ nullo non Tempore, Defectus observatus fuerit
‘ nullus clarorum Virorum, qui Artem hanc &
‘ probe calluerint & dextre exercuerint. Sub
‘ Initio quidem superioris sæculi, Observationes
‘ suas Chirurgicas, Luci publicæ exposuerint
‘ Clowes, Banister, ac Woodall; qui licet in
‘ principio magnam gloriæ speciem assecuti fu-
‘ erint visi, successu tamen Temporis, parum
‘ sunt æstimati. Ex recentioribus prostant Dom.
‘ Read & Wisemanni libri, quorum Ille, de Tu-
‘ moribus, Ulceribus atque Vulneribus, satis ac-
‘ curate scripsit: De Luxationibus tamen &
‘ Fracturis, Doctrinam penitus omisit: Manet
‘ igitur Laus merito solum Wisemannum, quem
‘ in Actis An. 1686. Mense Decembri p. 619.
‘ Tractatus ejus Chirurgicos recensentes, com-
‘ mendavimus; utpote qui integram Artis His-
‘ toriam tradens id Laudis consecutus est, ut
‘ Cynosuræ instar Chirurgiæ, studiosis Anglis
‘ hætenus fuerit: Atque hunc Defectum supple-
‘ turus, Clarissimus Turnerus, cujus de Morbis
‘ Cutaneis Tractatum, in Actis, Anno 1715.
‘ Mense Aprili p. 172. recensuimus; Artem Chi-
‘ rurgicam in hoc Opere exacte dilucidat, id po-
‘ tissimum

To the READER.

‘tiffimum agens, ut omiffis Hypothefibus, in
‘praxi nihil adftruat, quod multiplici Experi-
‘entia non fit roboratum: Sicque non vana lac-
‘tatur Spe fore, ut hi Difcurfus, apud Poste-
‘ros, constantem meritori fint applaufum, qui-
‘buscunque etiam mutationibus, vel Medicina
‘vel Ars Chirurgica, per Hypothefes novas fu-
‘erit exposita. Dividit totum Opus in 2 Vol.
‘feu Sectiones X. in quibus, non folum Theori-
‘am atque Therapiam Affectuum externorum
‘edocet, fed & Methodum præfcriptam, ubique
‘fere Observationibus, feu Cafibus, tam ab aliis,
‘quam a fe, in Praxi multijuga annotatis, qua-
‘rum novem decem fupra Centum numerantur,
‘illuftrat.

We might farther take Notice how acceptable
our Author's Works have been in other Parts
Abroad, obferved too in publick Accounts, but
fearing to incur his Difpleafure thereby, we fhall
fay no more upon that Subject.



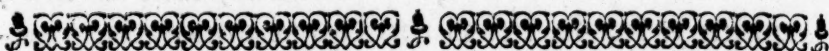
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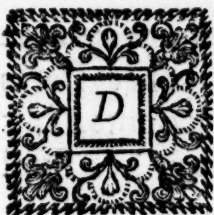
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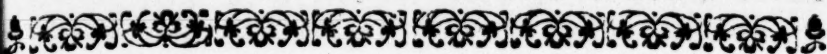
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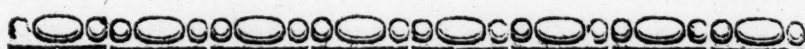


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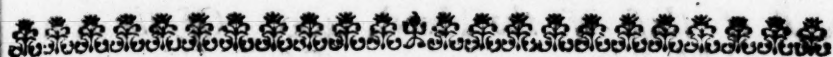


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T H E



THE
ART
OF
SURGERY.

SECT. I.

INTEND not, Gentlemen, to spend your time in any Harangue upon the *Antiquity*, the *Excellency*, or the *Usefulness* of this noble Art, which I have observed in another place; but shall proceed immediately to take Notice of those Disorders of the human Body which require its help; and these are, (speaking generally) reduceable to the subsequent Heads, *viz.* of *Tumours*, *Wounds*, *Ulcers*, *Contusions*, *Fractions*, and *Dislocations*. We will begin with the first.

Of TUMOURS in general.

*Tumour
defined.*

This Word *Tumour*, from its derivative *tumeo*, to swell or puff up, implying any preternatural rising, fulness, or distention of any part of our Bodies, beyond their proper and usual Dimensions; the Eye also discovering frequently what falls under this Denomination; there needs, I think, no other general Definition; so that having touch'd upon their common Causes, we shall come to their Division.

Causes.

If it be objected, That there are *Tumours* of the internal Parts, and consequently not obvious to Sight: I answer, That these fall more directly to the Province of Physic, and hold in other respects with our general Description.

Nor shall I trouble you with any unnecessary Detail of those *Causes*, which I reckon either *external*, such as *Punctures*, *Wounds*, *Contusions*, *Fractions*, streight *Ligature*, with whatever may occasion a Disturbance to the Part, or compress the Vessels round about: Or *internal*, from some particular Disorder of the Fluids circulating in the said Vessels, whether arising from *Plethora*, that is, a Fulness, or *Cacochymia*, i. e. some ill Quality of the Juices of the Blood; or Lastly, from some fault in the Vessels themselves, which convey those Juices.

These we call the *antecedent Causes*, but the *conjunct* or more immediate, are always some Obstruction.

We now proceed to their Division, and the manner of their Production.

*Division of
Tumours.*

Of *Tumours*, 'tis plain there are more kinds than one: They are generally divided into *humoral* and *flatulent*; which I think a better Distinction

Sect. I. Of Tumours in general.

3
stinction than that of those who difference them as *Tumours cum, & sine Materia*: An Absurdity in *terminis*, as putting an Effect without a Cause. For doubtless an *Emphysema*, or a flatulent one, is a material *Tumour*; tho' its Contents are more subtle and impalpable than the others.

In the manner of their Production they are differenced; as *Tumours* by *Fluxion*, and *Tumours* by *Congestion*; altho' in both, I conceive the efficient to be the same: I mean, an Obstruction of the *Tubuli* or small Pipes, from their stagnant Juices; which, by some proper *Dyscrasy* of their own, are rendred liable to stop up the Passages, as we observ'd but now, or by some outward Compression intercepted therein.

From either of these Causes, there must necessarily result a retarded Motion, if not an intire Stop to the Progress of the Fluid; and hence as necessarily a Divulsion of the membranous and nervous *Fibrillæ*, with increase of Bulk and Figure proportionate to the Obstruction.

Now 'tis from this sudden halling and lacera-
ting these Filaments, in the *Tumours* said to arise from *Fluxion*, which makes the painful Sensation more severe and exquisite than where the said Distention and Solution are made more leisurely, and by slower Periods, as in the *Tumour* so called by *Congestion*: So that there seems little other Difference betwixt them, than that the one is a Disease more hot and *acute*, the Obstruction coming on suddenly; the other cold and *chronical*, where the offending Matter is more leisurely and gradully heaped up.

As for the Part *mittent*, and the Part *recipient*, observ'd by some Writers as the Foundation of the Disorder we are now treating of, we all know, Gentlemen, that the Body of Man is not
B 2 only

only a *vascular Compages*, but that even each *Fibrilla* therein has a proper *oscillatory Motion* derived from its Source, the *Meninges Cerebri*, or from the nervous System: So that where this Motion is the weakest, the Fluids being, *cæteris paribus*, in their Consistencies equal, no wonder here should be the first Stop and Rise of a *Tumour*; or, that Parts which have the greatest Force of Constriction, should be most able to free themselves, and throw off the Burthen upon those where the Resistance is weakest. Again, that those depending should more readily than others, often favour this Malady, is not strange, the Motion of all Fluids being more facile by the *Declive*, and more liable to Impediment, or *slacker per Ascensum*.

Having said thus much of the Nature and Causes of *Tumours* in general, it remains that we speak a word or two of their more particular *Division*: And here I find the most usual is borrowed from the four supposed Humours in the sanguineous Mass, which the antient Founders thereof have denominated *Blood*, *Choler*, *Pblegm*, and *Melancholy*: From the first, deriving the *Pblegmon*; from the second, *Erysipelas*; from the third, *Oedema*; from the fourth, *Scirrbus*; and from its farther Degeneracy, into what they call their *Atra Bilis*, Cancer.

I called them *supposed Humours*, since however some at least of them may be after separated from the Mass; yet is their Existence therein *quatenus tales*, before they have undergone a change in their proper *secretory Organs*, not so manifest.

In our Survey of this purple Fluid, the Blood, by the help of Glasses, we discover only certain globular parts fluctuating in a limpid Vehicle;
and

Sect. I. Of Tumours in general.

and the naked Eye, after its Extraction, when it has stood some Time in the Vessel, perceives nothing but a thick *Grumus*, swimming in the midst of a serous *Latex*; the upper part of which Grume, containing usually a variegate, white, greenish, or yellowish Film, has accordingly, from some of the Antients, received the Names of *Phlegm* or *Choler*; the reddish Part adjoining, that of *Blood*; and the black Part at the bottom, *Melancholy*.

But later and much better Disquisitions in the Anatomy of this Fluid, and the manner of Secretion of several Juices from the same, together with the Nature of Colours, and the specific Gravity of Liquors, have better inform'd us; and shew'd, that the Superficies before mentioned, is made up of less-digested and assimilable Parts of the chylous Juice, before they are rightly or thoroughly sanguify'd; which being naturally lighter than the rest, take place at the Top. There is, indeed, another Sort of this fibrous Crust, which seems the Product, if I may so speak, of *Adustion*, being usually met with in all Distempers of the *inflammatory* kind; such I mean, as the *Quinsie*, *Pleurisy*, *Peripneumony*, *Rheumatism*, (I mean the *humoral*) and the like, for the same Reason of the other Parts preponderating, here taking their Residence, and condensing into a Crust or *Gluten*, from its Likeness usually termed *Size*.

As to the red Colour of the *Grumus*, where this Siziness is wanting, it seems beyond Controversy, owing in a great measure to the *Nitre* of the Air: For even the black Part at the bottom, or *Melancholy* of the Antients, being turned the reverse, and exposed a while to that Element, will soon gain a much brighter and more florid

Complexion. A farther Evidence we have of this, in the same Person's Blood coming out of a small Orifice, by which the Air has freer Access thereto, and pouring hastily at the same Time from a large one, in the other Arm, which you shall find of a much darker Hue, as not being so thoroughly pervaded by the said *nitrous* Particles falling in between.

I shall not stay to examine the *chemical Principles* of this Liquor; because I think by their *Analysis*, it is tortured to confess more than is true, from the admixture of some igneous Parts, which its genuine and natural *Crafsis* knows nothing of: But shall now proceed with this farther Remark upon the Subject; that the Blood of diverse Persons, using different Ways of living, being constituted of differing *chylous* Juices, and those Juices sanguify'd in differing Organs, there is no wonder that diversity of *Temperaments* should arise; that in the Blood of one, the *sulphureous*; in others, the *bilious* and saline; others, the *phlegmatic* and watery; in others lastly, the more *terrene* and *feculent*, should predominate: And consequently, that *Tumours* of differing Natures and Denominations, as well as other Diseases, should result thence.

And thus we see how in a looser Sense, where the Principles of the mixt are rightly and duly proportioned; or where the *sulphureous* rather predominate, being made out of Plenty of a rich and oily chylous Juice, we denominate the Person *sanguine*.

Again, how from the said Juice ill constituted, or its undue Fermentation and Volatilisation, after it has put off the Name *Chyle*, if its Particles become less springy, are *effæte*, lentous and slimy, and consequently less fit for Assimilation, we pronounce him *phlegmatick*. Far.

Sect. I. Of Tumours in general.

Farther, if in the said Juice there be a Redundancy of the *bilious* Humour, or that the same, by an over *Affation*, as the Antients express themselves, is become torrid or adust, we define him either *choleric* or *melancholy*; it being upon these Humours, that the four *Temperaments* of human Bodies are founded: Which at the same Time are so variable, that by Mismanagement, or an Abuse of what Physicians call the *Non-naturals*, the one is often changed into the other.

Thus the *sanguine*, from too much Sleep, want of Exercise, or by Sloth, with heavy indigested Meats, become *pblegmatic*.

By too much Exercise, Over-watching, Indulgence of Passions, from a hot, acrid and spicy Diet, *choleric*.

From a recluse and sedentary Life, Cares, Crosses or Misfortunes, with a Diet of flatulent gross Nourishment, *melancholy*: And so of the rest: The Predominancy of some certain Humour still denominating the *Constitution*. If all four of these Humours were so luckily combin'd, as to bring their exact and equal Share to the Composition (a rare Case) this they called their *Temperamentum æquale ad Pondus*. When so tolerably well pois'd, or duly blended, as to furnish out a healthy and sound Constitution, they gave it the Name of *Temperamentum æquale ad Justitiam*. But to return.

From this *Predominion* it is, that the same Authors have subdivided their four *Tumours*; Thus the one is called *Pblegmon Erysipelatodes*, from the over-poise of *Blood* to *Choler*: *Erysipelas Pblegmonodes*, from that of *Choler* to *Blood*. *Et sic de cæteris*.

Our famous Dr. *Pitcairn*†, who is almost every where, and often justly, exploding the antient

Of Tumours in general. Sect. I.

Definitions, altho' sometimes unreasonably reflecting upon all others, who could not relish his *Mathematical Medicine*, which yet has furnished, I think, some as unsatisfactory as those that with great warmth he had discarded; this Gentleman, I say, allows only of three *Temperaments* properly so denominated, and that these imply no more than ' a certain and determinate Fluxility of ' the Blood; which admits, that the Parts to be ' secreted from it, may be secreted, some easier ' than others, in any given Velocity of Circulation. Thus according to the *Ala mode Physic*, ' the *bilious Temperament* is that Degree of Fluxility of the Blood, which allows, in a given ' Velocity, the Bile to be separated in the Liver ' naturally constituted, in a greater Proportion ' to the other Secretions, than is common to most ' other Men of the same Climate; and this is ' wont to be called *hot and dry*. Whilst the *melancholy Temperament* is that Degree of Fluxility, ' which allows, in a given Velocity of Blood, ' and a naturally constituted Spleen, a greater ' Secretion than is proportion'd in other People, ' to the urinary and *cutaneous* Discharges, and this ' is nam'd a *cold and dry Temperament*. The *pituitous* is, when in a given Velocity of Blood ' from the Heart, the Proportion of *Saliva* secreted, is greater than the Proportions of other ' secreted Fluids: And this *Temperament* is *cold* ' and moist; but here (continues our Author) ' it must be observed, that herein we suppose ' Men in all other Respects healthful, and not ' influenced by any external Causes.

' As to the *Temperament* called *sanguine*, it is ' no more than a *Plethora*, or a greater Quantity of all the Fluids composing the Blood, ' than what is common or ordinary: And from ' these

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these Premisses it follows, that such as have any particular *Temperament*, are beginning to be diseased, or to deviate from a perfect State of Health: And that a *Temperies*, so called by the antient Physicians, is, in reality, an *Intemperies*, or a beginning Disease. Thus far he.

But I fear I have trespassed on your Patience, whilst I have been explicating the Opinions of the antient and modern Writers, as to this Affair of *Temperaments*, or differing Constitutions of human Bodies; which having done with, I shall proceed to the *Prognostics* and *Cure* of *Tumours* in general; their *diagnostic* Signs being usually contained in each of their particular Descriptions or Definitions; so that for avoiding unnecessary Repetition, I shall not notice them elsewhere.

The *Prognostics* then of *Tumours* in general, are *General* to be taken from the Parts, on which they are *Prognostics of Tumours* situate, the Nature of the Humour, the Habit of Body, the manner of their Production, whether *symptomatical* or *critical*, and lastly, from the *Modus* of their Termination.

Thus if happening upon, or near adjoining to the more noble Parts, or such as are immediately concerned in dispensing the animal and vital Functions, as the *Brain*, the *Wind-pipe*, and its Appendix the *Lungs*, the *Heart*, *Liver*, *Stomach*, *Womb*, *Bladder*, or the like, there is much more Danger, than when upon Parts less noble and necessary; if near to the large Blood-vessels upon the Joints and nervous Parts, more than when remote from the same.

Again, if the *Tumour* takes its Rise from the offending *Bile*, or its farther Degeneracy into an *Atra Bilis*, as the Antients speak, there may be more Danger than from *Blood*, or the *Pituita*; if arising in a *cacochymic* or gross Habit of Body,
more

more than where the same is rightly and better constituted: If, by Translation, from within, there is more danger than when occasioned by some outward Accident, especially happening to recede, or indiscreetly driven back again into the Blood by repelling *Topics*.

Finally, the Danger will be greater, if terminating by an *Aposteme*, and much greater still, if by a *Mortification*, than when the peccant or offending Humour impacted on the Part, will admit of Resolution, or being discuss'd.

Cure of Tumours in general. As to the Cure of *Tumours* in general, all we shall say thereto, will amount to this, that, as each has its quadruple Time or Station, *viz.* *Beginning, Increase, State, and Declension*; so likewise a four-fold Termination, *i. e.* by *Repulsion, Resolution, Maturation, and Mortification*; to these by some is added a fifth, that is *Induration*, which is rather a Change of one Disease for another, tho' it happen to be the Conclusion of the former.

The first of these Intentions is obtained by Medicaments *restringent* or *repellent*; the second, by such as we call *Discutients*; the third by *Suppuratives*; and the last is prevented, so far at least as Art can administer Relief, by means of those, which, with their spirituous Particles, assist the languishing Heat of the Part, and subdue the Putrefaction therein beginning.

The Nature and Faculties of all which, with the Manner of their Operation, we have already accounted for, in a short Appendix to our Treatise, *De Morbis cutaneis*, concerning the Efficacy of *local Remedies*. The Names of such, as have been used in our own Practice, and the Way of applying them, either single or compounded, as the several Indications call for, will be gathered

Sect. I. *Of the Phlegmon.*

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ed from our Method of treating particular *Tumours*, to which we shall now hasten, and keeping to the antient Division of them, I shall begin with

The PHLEGMON.

This *Tumour*, from its original φλέγω, denotes *Phlegmon*. a Swelling on any Part of the Body, with great Heat and Inflammation round about, attended with Fever, exceeding Pain, Tension and Throbbing, or Pulsation.

The Fever is owing to an intestine Commotion of the Blood, by means of some *beterogeneous* Matter oftentimes admixt, or from an Obstruction of the Vessels, through some outward Violence offered to the Liquor moving therein. The Pain arises from the tearing in sunder the nervous *Fibrillæ*, the Tension from the heaving up the Membranes by the Humours included, and the Pulsation from the obstructed Circulation in the adjoining Artery, which is now forced by a redoubled *Nisus*, or Vibration to drive on its Contents.

The Cause of this *Tumour* is by the Antients, Cause as we have already taken Notice, deriv'd from Blood, if it be a true *Phlegmon*; or admixed with the other Humours, when it partakes of the *Erysipelas*, *Oedema*, or *Scirrhus*.

When it ariseth from Blood, there is a *Plethora* supposed of the Vessels: But here, surely we might expect, that Nature should rather ease herself by a *Hemorrhage*, as she does sometimes, than by raising of this Swelling; 'tis true, we are not certain, but that when this Turgency of the Vessels happens through their Fulness, the Force and Motion of the Blood being stronger through the

the Arteries, than by the venous Channels, some parts may be let go by the capillary, or evanescent Arteries in those Interstices; especially where the *Fibrillæ* are less tense, or their *oscillatory* Motion weakest, to assist and protrude the Fluid that is tending to an Extravasation.

But doubtless, we meet with this *Tumour*, where such *Plethora* is wanting; and therefore I am induced to surmise at least, that when it happens without Accident of Wound, Contusion, or other external Violence offered to the Part, by which the Circuit of the Blood is therein impeded, some foreign Matter being mixed with the Mass, raises first of all this Commotion or Effervescence, and inkindles a feverish Heat therein, the same being Nature's Instrument, (as the judicious *Sydenham* expresseth himself) that she calls to her Assistance for expelling her Enemy; which having by this *Ferment* fitted for such Expulsion, according to the Nature thereof, and his Correspondency with her several Outlets, she casts forth by *Sweat*, by *Stool*, by *Urine*, by *Expectoration*; or if suited to none of these, he is sometimes thrust out into the fleshy Parts, in form of an *Apostem* or *Abscess*, the Disease before us: And this by Physicians is called a *Crisis*.

*The Word
Nature in
what Sense
understood.*

Having here more particularly, as perhaps also we may have in other Places, Occasion to make Use of the Word *Nature*; I desire once for all, it may be noted, that I use the Term with some others, in a Sense *Physico-mechanical*, taken in a Complex of the whole animal Fabric, or which includes the Circulation of the Blood and nervous Fluid, together with the regular Disposition of all the Parts of the Body, as to their several Mechanisms, which, at first put into motion by the supreme Author of their Being, are able of themselves afterwards, through
the

the Energy he has bestowed upon them, to answer the proper Ends intended them in their Structure.

The *Helmontians* by their *Archeus*, the *Platonists* by their *Anima Mundi*, the *Cartesians* by their *Æther*, and the common People by their *Instinct*, mean surely much the same, if some of these obscure Phrases have any true Meaning at all. But to proceed.

We have already observed, that a *Fever* does accompany this Swelling, and light *Rigours* or Shiverings also at some times intervene, especially if terminating by an *Abscess*; nor is the said *Fever* symptomatic only, as in the *Phlegmon* from Punctures, Wounds, Contusions, &c. but oftentimes, as when the Distemper ariseth from within, the primary Disease; the *Tumour*, as we have already taken Notice of, being the *Crisis* of such preceding *Fever*, in the Way of *Translation*; which is sufficient Caution, I think, to the young Surgeon, that he by no Means go about to repel such *Tumours*, or drive the Matter back into the Blood.

Every Pustule in the Small Pox, as Dr. *Morton* well observes, is a *Phlegmon* of this kind; and the striking in of the *variolous* Matter is known by all to be very fatal, which brings me to the *Prognostic*.

In Reference to which, we are to observe, as *Prognostic* we remarked before, in those of *Tumours* in general, so here particularly, the Danger is less or more, according to the Part it affects. And thus upon the *Larynx* or *Wind-pipe*, where it is called an *Angina*: More especially when it is seated on the internal Muscles, there is always extreme Danger, unless the *Bronchotomy* or *Aper-tion* betwixt the *Rimulæ* of the *Wind-pipe* steps in to ransom, as it has done sometimes, the strangling

strangling Patient: If on the Breast and Belly, upon or near unto the *Joints*, there may be Danger of a *Fistula* being left behind; again, there will be more Danger, when arising from an inward Cause, than by the Occasion of some outward Hurt or Accident. In a Word, the *Phlegmon*, that can neither be brought to *discuss*, nor yet to *suppurate*, is full of Danger, on account of the *Gangrene* and *Mortification* that is like to follow.

Cure.

In order to the Cure of this *Tumour*, if the Disease take Rise from an outward Cause, and that the Surgeon is call'd in Time; he may endeavour to repel the Influx of Humour, with a Defensative of *Diapalma*, *Bolus verus*, *cum Aceto Vini* & *Oleo Rosarum*, ana *q. s.* melted down and mixed in the Form of a *Cerate*; or let him embrocate the Part *cum Oleo Rosar. & Aceto*; also the *Oleum* & *Unguentum Sambucin.* serve well for this Purpose; after which, a moderately streight *Bandage* may be applied; but not so as to create any Uneasiness upon that Account to the Patient, who must immediately be let Blood to 9, 10, 11, or 12 Ounces, according to the Age, Strength and *Temperament*, or Constitution. If the *Tumour* be on the Arm, a Vein in the Arm opposite is to be opened, otherwise in that where the Vein lies fairest for the Lancet: Let his Body be kept soluble by Clysters, or lenient Purgation, and whilst you have any Hope of returning the Humour, or of discussing it either, let his Diet be as spare as may be; his Drink the good old *Ptisane* of Barley-Water with a little Liquorish and a few Raisins stoned, or some Liquor analogous thereto; his Food also the Barley or Water-gruel, *Panada* or the like; avoiding all Sorts of Flesh, or even the strong Decoction thereof:

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In case of great Pain, his Bowels being first emptied by Clyster, or otherwise some gentle Anodyne, *ex Aq. Flor. Paralys. ℥ij. cum ℥ss. 3vi. vel. ℥i. Syr. de Meconio*, may be allowed at the Hour of Rest; observing farther, as well in this as all other Distemperatures of like kind, a due Regard to the other *Non-naturals*, such I mean particularly as *Exercise* and *Passions*, Rest and an even Disposition of the Mind conducing not a little to your Patient's Recovery.

When I mention this spare Diet, I would not be so understood, as if this rigorous Abstinence was to be enjoined to all without Exception; there being many Persons, who, by the Force of a wretched Habit, more especially since that detestable and fatal Practice of tipling strong Waters, came into that request it is in our Times, have made such Liquors as familiar to them, as our common Ale and Beer, to the more temperate; so that he, who scarce ever sleeps without a Bottle or more of Claret, or perhaps a Pint of the distill'd Spirits, must even in his Illness be allowed daily half a Pint of the one, or a Dram or two of the other; the Indications for which, the judicious Artist must take from the *Languor* of the Spirits, or the Approach of a *Deliquium*, to which these unhappy People are more prone than others, when debarred of their beloved Liquors.

But if notwithstanding your first Application of repelling Topicks to the *Tumour*, with your other *Regimen*, the Symptoms of *Pain*, with still greater *Tumefaction* and *Inflammation*, should continue and increase, some *Anodyne* Application in the form of a *Cataplasm* or *Pultis* to the Part, will be both necessary and useful to relax the over-extended Fibre, sooth the intraged Spirits, and

*Allowance
to Custom
or old Habits, tho' bad ones.*

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I

qualify

qualify the *Orgasmus* therein stirred up; and from hence you will quickly discover, whether *Discutients* or *Suppuratives* are to take place.

The *Cataplasma* I propose, is that simple one of the *Medulla panis in Lacte cocta cum pauculo Croci & Vitello Ovi additis*, or a *Decoctum Fol. Rosar. Flor Sambuc. & Chamæmel. in Lactis vaccini q. s. & mica Panis inspissatum*.

If after this, for two or three days repeated, the Tumour should remit or seem at a stand, you may endeavour to dissipate or discuss it with the following *Fomentation* and *Cataplasma*, with which some gentle *Restringents* may be decocted. For Instance:

R. Summit. Hyperic. Centaur. Min. ana Mj. flor. Chamæm. Melilot. sambuc. ana Mj. fol. Rosar. rub. Mß. flor. Balauft. P. j. Coq. in p. æ. Aq. F. & Lact. vaccin. q. s. pro ℥iij. Colaturæ.

If you would have it more discutient, you may add the *Summit. Absinth. Rom. Rorismar. Fol. Laur. Bac. Juniper. Sem. Cymin. &c.* If more restraining, those above, in a double Proportion, may be sufficient: But these hotter Simples are seldom wanted here, as by their Heat and Subtilty too much attenuating, and increasing the Inflammation, although excellently well suited to the *Oedema*, or other cold and pituitous Swellings.

N. B. That the one half of this Colature, or strained Liquor, may be reserved for the *Fotus*, as is customary where the *Magma*, or Remains of the same are not so fit for pulping; the other for the *Pultis*, which may be now thicken'd with *Farina Fabarum*, instead of the *Medulla Panis*. And in the Decline of the Tumour, if it can be so brought about, for strengthening the Part

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and recovering the Tone of the Fibres, the Re-stringents being increased, the Decoction may be made in the *Aq. Fabror.* or the Forge-Water, adding, towards the End, a quarter part of good red Wine.

Farther, when in Opposition to your Endeavours in repelling or dissipating the inflowing Humour, the Disease encreaseth, and light Rigours or Shiverings (a frequent Attendant upon the making of Matter, in these inflammatory Tumours) come on, you must hasten Suppuration with the following or the like *Cataplasma*.

℞ Rad. Alth. Lil. Alb. ana ℥ij. Fol. Malvæ Mij. ficuum ping. incis. ℥iij. Sem. Lini ac Fœnugr. contus. ana ℥i. Coquantur in lact. vaccin. dum pulpentur, quæ supra pannum crassiusculè extens. applicetur calidè modo Pultis, parti inflammatæ, illinendo eandem Ol. Lil. priusquam applicetur.

If a larger Quantity be required, both the Ingredients and the Liquor may be augmented; if a lesser, diminish'd; the Figs and Lily-Roots alone boiled and pulped; or, for want of an Opportunity of procuring either, the *Unguent. Basilicon*, mix'd up with a third of that *De Althæa*, and spread thick upon a piece of Cloth, or fine soft Leather, makes an excellent suppurative *Ευπρόσιτον*.

Observe, in all *Cataplasms* thicken'd with Bread, but more especially with Flower, some Oil or Ointment must be mixed, or the Tumour well embrocated therewith, before they are laid on; otherwise, in these inflammatory Affects, they will quickly grow stiff and dry, to the great Disturbance of the Part, and Disquiet of your Patient.

Thus in the repercutient *Cataplasma*, you may put in the *Ol. Rosar.* in the *Discutient*, the *Ol.* or *Unguent. Sambucinum*; and in the *Suppurative*,

the *Ol. Hyper. Lil.* or the *Unguent. Dialth. Zi.* or more of the Oils, with *ʒij.* or *ijj.* of the Ointment to each Pound of the Pultis.

*Cata-
plasms to
be continu-
ed.*

I have been informed, that some Practitioners (but I think those not of the best Note) have almost discarded, I suppose for the Trouble of preparing them, this good old Form of Chirurgie Application, and substituted the *Emplast. à Bolo* to answer the first; *De Bac. Laur.* the second, and the *Diach. cum Gum.* for the last. But I can by no means approve their Method, neither so fully answering the Intention, nor, I am sure, will they sit so easy upon so exquisitely painful a Tumour, as is particularly that about which we are now discoursing.

The Matter being once made, to be known by the remitting somewhat of the Pain, the nervous *Fibrillæ* having now undergone their utmost Stretch, and ceasing to be longer halled asunder; as also by the said Matter collected, fluctuating more deep or superficial, under the Pressure of the Finger; the *Tumour* also rising in the Middle into an Eminency or Cone; it must be let out or discharged by an Opening for that purpose, made either by *Caustic* or *Incision*.

*Caustics
preferable
to Incision
in large
Apostems.*

The former way is doubtless preferable in large *Apostems*, not only carrying less of Terror to the poor Patient, but more secure and advantageous.

'Tis true, the *Caustic*, however mild, will be attended with Pain, more or less, during its Operation; but this is after compensated by the Ease of the dressing, when you have no Occasion to cram in Tents or Dofils, as you must to keep the Lips of a recent Wound distended, and thereby choak in the Matter; by the one increasing the Pain, by the other the *Sinuosity*: And the *Probe Scissars*, by these Means, are generally wanted, to finish
what

what the *Lancet* has thus imperfectly performed.

I cannot say that these will never be wanted, after the *Escharotic*; but I may say this, that I have not found them so often required: For if the Texture of the *Fibres* be not very much injured by the preceding Putrefaction, this easy way of Discharge through the perforated *Eschar*, assisted by suitable Compress and Bandage, does often bring some of the largest Abscesses of this Kind to a happy Conclusion, without farther trouble; it being very common for the Tumour to subside, the broken *Fibres* to unite, the Ulcer to be digested, deterged, incarned, and ready for cicatrising soon after, if not presently upon the Fall of the said *Eschar*, when sometimes a little dry Lint alone, or some other *Epulotic*, will be found sufficient to compleat the Cure.

However, if the *Abscess* be small, or upon the Face, where Care is to be had for Prevention of a *Scar*, after the healing up, I am not so fond of the *Caustic*, as never to give way to the Point of a *Lancet*; with which, when the *Apostem* is open'd, tho' a Vent no bigger than that for *Pblebotomy*, or letting Blood, may suffice to let out the Matter: Yet, if the *Tumour* be any thing considerable, I should prefer one that is much larger; when instead of the Tent stopping up the Matter, a light Dofil may be laid down between the Lips of the Wound, armed with a *Digestive*, if there be little or no Flux, or some *Restraining*, as there may be found Occasion.

If the Cavity be deep, or in a Place where the Dofil slipping in, is not easily recovered, you may tie a bit of Thread or Silk about the same, for its more ready Extraction.

The *Digestive* for this Use, may be that common one of *Terebinth. Venet. cum Ovi vitello*, to

which a little *Unguent. Basil.* is sometimes added, or this latter mix'd with the *Linimentum Arcaei*, which of itself is a most excellent Medicine, and generally made use of for Wounds, more particularly of the Head and Face.

This way of Dressing by the Dofil, is not only easier to the Patient, but the Wound being more open, commodious for the draining away of Matter between the Times of Dressing, the same Compress and Bandage here assisting, for uniting the *Sinuosity*, as if open'd by the *Caustic*; and if by these you cannot agglutinate, you are to dilate, as in other *sinuous Ulcers* shall be directed.

Having mentioned *Compression* and *Bandage*, give me leave to add a Word or two in Commendation of these two noble Assistants to Chirurgic Practice; which, if rightly understood, and as rightly adapted, would prevent many a bitter Groan of the Patient, as well as Heart-ach of the conscientious Practitioner of this noble Art.

I know they can't be always, but doubtless oftentimes both Knife and Scissars might be spared, were these well cultivated, or duly and timely practised; there being few *Sinus's* from recent *Apostems*, or of the *acute* kind, where the *Bone* is covered, which might not by means hereof be well united, and consolidate, if situate also for the same.

*The Use of
Compress
and Bandage, with
several
Sorts of
them.*

Under the Name *Bandage*, I would have comprehended not only the common *Roller*, but the laced *Sock*, *Stocking*, *Knee-piece* and *Trowse*, together with the *Glove*, *Elbow* and *Arm-piece*; which by their equal Lacing, when well fitted to the several Members, oftentimes exceed the other, altho' managed by the most dextrous Hand. And by *Compress*, I mean no more than a common *Bolster*, of Cloth rudely laid upon the grieved Part, and as carelessly bound on. The *Plaister Compress* is what

what I hint at, which both keeps its Situation, and makes a truer Compression than the other Bolster. These may be very suitably prepared of your common *Defensative*, three or four Folds of them stuck together, and shaped, as near as may be, to the Compass or Dimension of the Cavity to be compress'd; observing heedfully to bring the Edge thereof even with the Lips of the disjointed Part, over which a Bolster of soft Cloth, in the ordering whereof, there is no such great Need of the former Exactness or Circumspection.

As to the Management of your *Roller*, you are to take Care, that the Circumvolution be made that way, whether to the Right or Left, as may bear first upon the Extremity of the *Sinus*, before it reach the Edge of the Wound or Ulcer; by which you will press out any contained Matter, and unite at the same time: Whereas otherwise you may chance to agglutinate the outward Orifice, and shut in the same to the Hazard of a fresh *Abscess*.

But here I must confess, what we call *Autopsy*, or ocular Demonstration, exceeds the most graphical Description; and the most instructive Rules for *Bandage* fall short of their being shewn by some compleat Proficient therein: The Length and Breadth whereof are to be taken from the Size of the Limb, or Parts they are to encompass, with the Number of Circumvolutions round the same that are required: And thus, for the Finger, about a Finger's Breadth; for the Wrist, 2 Inches; for the Leg, 3 or 4 Fingers; and for the Thigh, a Hand's Breadth; more or less may be necessary. The same likewise for the Trunk of the Body.

But to return to the *Apostem*, whence we have digress'd, and to acquaint the young Practitioner what *Cautistics* are most convenient for his Purpose. He is to understand, that there are three differing

The several Sorts of Cautistics and the Manner of applying them.

Forms or Orders thereof. The strongest, I think, is reckon'd the *Lapis infernalis*, or the first running of the Soap-makers Lees, called *Lixivium Capitale*; this being boil'd up in a Brass or Copper Ladle to a Consistence, is, with a hot Knife, cut into Pieces of several Sizes, and kept close stop'd from the Air, till the Time of use. A Piece of this, of the Compass of a Silver Three-pence, will make an *Eschar* near as large as a Six-pence, and usually performs its Work in an Hour's Time. A milder than this is made out of this *Lixivium*, with the Powder of *Calx viva*; and a still gentler, called, from its Softness, I suppose, the *Velvet Caustic*, by the Admixture of a little Soap with the said *Calx*, made up into a Sort of Paste, which is used to Infants and tender Bodies, and suffered to lie on for twenty four Hours. Observing, that in all these *Caustics*, which have an *alkaline* or *lixivial* Salt for their Foundation, you must keep them in a dry Place, as before observed, secured from the Air, in which they would run *per Deliquium*, by a sound Cork and Bladder tied over the first, and a Bladder also over the Gally-pot containing the latter.

I forbear mentioning some other *Escharotics*, prepared from the several *Arsenics* or corrosive *Sublimates*, which I look upon as dangerous Medicaments, having frequently seen very unhappy Symptoms attending their Application, such as *Spasms* or *Convulsions*, from their malign Nature hereby communicated to the *nervous System*, with horrid Pain, and Symptomatic Fever; also *Cardialgia* and incessant Vomiting, with cold Sweats, and *Syncope* or Fainting away; an Instance of which you will meet with in *Fernelius, Meth. med. lib. 6. ch. 18.* where he speaks of a Woman destroyed

destroyed in six Days by its outer Application, occasioning the like Symptoms as if the Poison had been taken inwardly.

The way of applying *Caustics* is well enough known to be by snipping a Hole in a piece of Plaister, of the Dimension of the *Escharotic* intended, and having stuck some narrow Bits of the same all round the said Hole, the better to let in and contain your *Caustic*, you are to lay the Plaister upon the *Tumour*, so as to cover the same, with the Perforation on the most prominent Part, where the Fluctuation of the Matter is the most perceptible, rather inclining to the depending than otherwise, for the readier Discharge thereof, and, if possible, to prevent an after Dilatation.

Into this Hole, or Cavity, the Bit of *Caustic* is placed, with a Pledget of dry Lint immediately thereon, and a Plaister upon that; also a cross Strap of the same adhesive Emplaster, with a moderate Bandage to retain all on; always remembering to proportion the Size of your *Escharotic* to that of your intended *Eschar*, lest you find yourself after deceived; for they will be apt to spread upon the Solution of their Salts, in spite of all your precaution, and to make a Crust much larger than their own Compass, when first laid on.

-This Caution, how unnecessary soever it may seem, I thought the less so, having frequently found an Ulcer the Effect of one of these *Caustics*, as big as a Half-Crown, and that too upon the Face, Neck and Breasts of Gentlewomen, (where the Scar, as much as possible, ought to be avoided,) which needed not to have exceeded the Compass of a Silver Groat.

The *Eschar* being thus made, for which, as we remark'd before, you are to allow Time, according to the Strength thereof, you are to penetrate

or cut through the same, at this Time insensible to the Lancet, and discharge what Matter flows forth freely, without contusing or over-much pressing the Parts adjacent, to get out all at once: For that, if the *Abscess* be very large, might hazard your Patient's fainting, with Suffocation of the native Heat of the Part.

After letting forth the Matter, apply a Pledget of *Basilicon* dipt in some of the same Ointment melted down in a Spoon over the Crust, with a common Plaister of *De Minio*, or *Diapalma*, and a Bandage to retain your Dressings, which is to be no other than such, for the first Days, till the Patient grows easy; when the Compress and Deligation before-mentioned will be absolutely requisite, by which artfully managed, and the Continuance of the same Digestive, till the *Eschar* separates, you may perhaps unite the *Sinuosity*, compleating your Patient's earnest Desire, and finding nothing more wanting upon the Fall thereof than some *cicatrising* Medicament, to finish the Work; during the Course of which, more especially in cold Weather, and antient People, a warm Stupe or two wrung hot, out of the discutient Fomentation, in the Beginning taken notice of, may be necessary not only to comfort the Parts, and help to dissipate the Reliques of the Humour, but to strengthen the relaxed Fibres, and recover their proper Tone.

But if, notwithstanding your Endeavours to unite or agglutinate, the Matter has so insinuated itself into the Parts about, or formed such Cavities, as will not this Way admit of healing, before you enterprize the Dilatation, especially of such as are large, deep, or intricate in their Turnings and Windings; you are to deliberate, whether or no, by choaking in the Matter with
a Tent,

a Tent, (and here I must confess, if at any time, there is a Use of them) you may not force the same, upon raising some new *Abscess* in a Place more suitable for Discharge, or draining off the whole; when, by a second *Cautic*, you may obtain what you could not by the first: A Case very common in the milky *Abscesses* of Womens Breasts, where we meet with several *Apostentations*, one after another, that foil and baffle all our Skill, till the Matter pent in, either by these means, or naturally subsiding to some more depending Part, is easily discharg'd thence; and what before had been the fruitless Work of several Weeks or Months, is now accomplish'd in as many Days. In a word, if it be found absolutely necessary to cut open the *Sinuosity*, you are to proceed, as in *sinuous* and *fistulous Ulcers* shall be hereafter directed.

In the *Phlegmon* arising from an internal Cause, or which is the *Crisis* of a Fever, the same Method is to be observed; unless that, omitting all restraining or repelling *Topics*, you are, from the first, to endeavour to discuss, or failing therein, to hasten *Suppuration*, as we have above directed. An Instance or two of this last kind we shall give as follows.

A young Gentleman, at that time about four-Hist. I.teen Years of Age, the Son of a wealthy Merchant, then living in the *Spittle-Yard*, since nam'd *Bolingbrook-Square*, having for some Days been ill of a Fever, irregularly intermitting, after the fourth *Paroxysm* complain'd of a Swelling, with a small Inflammation, about a Hand's breadth above the joint of the Knee; which growing harder, more painful, and inflam'd, I perceiv'd a true *Phlegmon* so far advanc'd, as to indicate no other than *maturative* Applications; and indeed, if it had been capable, by no means safe to have been treated

ed otherwise, the febrile Matter being here separated by the Strength of Nature, and thrown out of the Blood as inimical thereunto; for forwarding therefore the *Suppuration*, I directed the following *Cataplasm*.

R. Rad. Lil. alb. prius lotorum, & ab omni Sorditie mundat. ꝑ℞. Ficum pinguium incis. ℥iv. Coq^r. in Aq. F. & Lact. vac. ana p. æ. q. s. donec in pulpam reducantur, cui addendo Ol. Lil. ℥ij. f. instar pultis, cujus pars tertia vel circiter, applicetur parti femoris tumefactæ, renovando post 24 Horas.

The Day following the second Application, I perceiv'd the Matter fluctuating, the *Tumour* prominent in the middle, and fit for the Discharge; wherefore I applied a piece of the milder Caustic, *ex calce cum Lixivio supradicto*, of the Length of one Inch, and the Breadth of a Quarter, over Night; the next Morning, finding a proportionate *Eschar*, I entered the same with a full-pointed Lancet, discharging near a Pint of *Pus* well concocted; upon which the Symptoms remitting, the young Gentleman grew easy.

The *Eschar* was dress'd up with a Pledget of *Basilicon*, dipt in some of the same, made warm in a Spoon, a Bolster compress being placed on each Side, with a double-headed Roller, for the more commodious pressing forth the *Matter*; which daily lessening by these means, the *Sinuosity* above united, but the Crust separating, the Flesh underneath appear'd spongy; upon which sprinkling on the *Præcipit. rubr.* I chang'd the *Basilic.* for the *Linim. Arcæi*, and continued this Way of dressing, sometimes strewing on the said *Præcipit.* by itself, at others mixing it with the digestive, till the Ulcer being fill'd up with a seeming sound Flesh, and ready to *cicatrise*, I dress'd it up with dry Lint,

Lint, concluding my Work accomplish'd. But finding the Discharge one Morning increased, at least much greater than could be reasonably expected from the superficial Sore, passing my Probe through a small *papillary Excrescence*, or *spongy Caruncle*, I perceiv'd, at the End next the *Patella*, a *Sinus* passing deep under the *Rectus*, and was apprehensive of its penetrating into the Joint; upon which fitting a Plaister Compress, and endeavouring by Bandage to unite the Cavity, I found the Trial fruitless, the Matter still discharging in great Quantity: So that acquainting his Parents with the Necessity of enlarging the Wound, or to leave a Fistula, I first of all introduced a bit of *Gentian Root*, to make more Way, and thin the said Cavity, for the easier dilating of the same, either upon the *Director*, or by the *Probe-Scissars*, as should be found most expedient. After a Day or two thus spent, we call'd in Mr. *Bernard*, who examining the Case, and preferring a strong shank'd Pair of Probe-Scissars I had by me, the *Sinus*, which was near an Inch thick, and more than three in Length, was immediately cut open, the Wound being persently fill'd up with dry Dofils, and a Pad of Tow dipt in *Oxycrate*, sprinkled over with *Farina Tritici*, in regard of a small *Hæmorrhage* attending.

The next Day taking out the Dressings, and having applied two or three hot Stupes, express'd from a Decoction of the warm Plants (for it was Winter time) and the camphorated Spirit, we fill'd up the Incisions with Dofils dip'd in the melted Liniment, also a Pledget of the same externally, and roll'd him up for that Time: But the Day after, examining the Wound more narrowly, and passing my Instrument directly downwards, I felt the Bone of the *Femur* denudated of
its

its Cover the *Periosteum*; upon which, endeavouring to make more Way, I distended the Cavity with Dosils of dry Lint, made up hard for that Intention, and clapt down close with the *Digestive*, as before on the outside, and suitable *Bandage*.

At our Meeting, the Day after, my Assistant being by, taking out the Dressings, he thrust down his Finger to the bottom of the Wound, and plainly perceived a large piece of the outward, or cortical Part of the *Os Femoris*, in the manner of a thin *Lamina*, already desquam'd or separated from the sound Part, lying entangled only by some fleshy Fibres, or rather a *fungous Flesh*.

At this Dressing, we strew'd thereon a little of the *Præcipitate*, and as before, fill'd up the Cavity with Dosils; when the second Day after, meeting again by Appointment, and with my *Forceps* extracting the lowermost of the said Dosils, the *Exfoliation* came into sight; upon which placing the end of my *Spathula* underneath, without any Force used, or Flux ensuing, I lifted out a piece of Bone very ragged all round the Edges, of an Inch and half from one Extremity to the other, and about half an one over; after which we laid in our Dosils, made more soft and easy to the Wound, dip'd likewise in the dissolv'd *Liniment* aforesaid, and therewith sometimes mixing the *Præcipitate*; quickly after, the Obstacle to healing being now remov'd, the same was *incarn'd* and *cicatrised* with dry Lint only, without any farther Trouble.

And this Case I think the more remarkable, in that a Bone was found so suddenly separated in a *Tumour* of the *acute* kind, or made, as we say, by *Fluxion*, and ensuing a febrile *Crisis*, without any external Violence or Accident befalling the Part, but arising suddenly with *Pain*, *Inflammation*

tion and *Pulsation*, after the manner of a common *Phlegmon*.

It was the Opinion of his Physicians, that the Matter, tho' lodg'd so short a Time upon the Place, had yet however, by its corrosive Quality, eaten off the *Periosteum*; to which I could not assent, believing rather, that the Malady, as in some *strumous* Affects, began at the Bottom, and raised the *Tumour*, *Pain* and *Inflammation* outwardly, and that those irregular Fits, as they were term'd of an *Intermittent*, were mere *Rigours* usually attending these Affects of the *membranous* and *nervous* Parts. However, as I observ'd but now, it must be look'd upon somewhat singular, that an *Exfoliation* from so hard a Bone, without any previous Appearance, should be so suddenly raised, as in the Space of a Fortnight, or thereabouts.

A Woman, middle aged, of a *Scorbutic* Habit, HIST. II. after a feverish Indisposition of some Days, was let Blood in the Arm; but whether by means of the Ligature intercepting the Circuit of the Blood *pro Tempore*, the Fluxion might be here as it were invited (for it was apparent, that no Injury had been done either to the *Tendon* or *Artery*) or that a *Crisis* being at Hand, *Nature* had otherwise thrown out the morbid Matter from the Blood into the same Part; it so happened, to the great Misfortune of the Surgeon who had been employ'd, the same Night an Inflammation seized the Arm, extending itself from a little above the Joint of the *Cubit*, to within a small Space of that of the *Carpus* or Wrist.

The next Day I was consulted, when in Justice to the Surgeon, I declar'd, he was no other ways instrumental to the Accident, than in the unlucky timing the State and Condition of the preceding Fever, bleeding her before her Body had been pre-

prepared by some lenient Purgation, or being hot and coſtive, the throwing up an emollient Clyſter, that might have deriv'd at leaſt ſome Portion of the peccant Matter by the inferior Paſſages. For the *Deſpumation* being begun, and the noxious Humour, like a Scum, ready to be thrown forth out of the Boſom of the Blood; the tying of a Ligature, as I obſerved but now, might probably make way for its falling rather upon this, than any other Part of the Body; but which was out of any Man's Power either to have foreſeen or prevented; and indeed, had not the Storm fallen here, it had in all Likelihood ſhewed itſelf elſewhere, or perhaps prov'd more dangerous to the Life of the Patient, either by Continuance of the feveriſh Efferveſcence, or Translation of the Matter to ſome more noble Part.

But conſidering the Nature and Cauſe of this Inflammation, I could by no means adviſe a re-percutient, or repelling *Topic*; and therefore, when I had order'd, that the Orifice ſhould be dreſs'd up with a Pledget, arm'd with a Digefſtive, I directed, that the Parts affected ſhould be gently embrocated, *cum Unguento Sambuc. ac pauculo Camph. in Spir. Vini ſolut.* and afterwards an *anodyne Cataplaſm* laid on *ex decoct. Flor. Sambuci & Chamæmeli in Lacte, cum mica Panis in conſiſtentiam redaet.*

The next Day the Tenſion ſeemed a little to relax, and the Inflammation was ſomewhat leſs, the Orifice ſoft and pliable, and tending to cloſe up; that Evening I preſcribed a Clyſter, adviſing a ſpare Diet, forbidding Fleſh, and all Liquors, except the ſmall diluting ones allowed in *acute Fevers*, with her Gruels and Panada, which was a Penance, I perceived, very difficult to her, who had uſed herſelf to more reſiſhing Foods, as well

as Liquors; and I was satisfied, transgress'd herein by her own Servants: Upon which Account, for abating the *Plenitude*, and making farther Derivation of the Humours, I would have risk'd a second *Venesection* in the opposite Arm, and readily offer'd my Service therein for her greater Encouragement; but she would by no means comply, having let in an unalterable Belief, that her first Bleeding had been the Occasion of this Misfortune; so that at this second Opening, we only renewed the Applications as before, with farther Orders of an *anodyne* Draught in the Evening, after the *Clyster* had done working.

Yet the next Day, notwithstanding all our Endeavours, a true *Phlegmon* appear'd: The Inflammation and larger Tumefaction again shew'd itself with great Pain and Throbbing also, threatening an *Abscess*.

However, once more I order'd the Arm to be *embrocated*, and the *Cataplasm* also to be laid on as at first. The Orifice was closed up, and that Part of the Bend of the *Cubit* easy, less partaking of the Inflammation than those below.

The fourth Day, perceiving our Labour vain towards a Resolution or Discussing of the Humour, the Tumour still encreasing, I order'd a *Cataplasm* of the *Rad. Lil. alb. fici ping. Sem. Lini ac Fœnugr. in Lacte coct. & Pistilli ope ad instar Pulpæ coact.* When the next, we found the same more manifestly enlarged, and raising as it were *conical*, about four Fingers Breadth below the Flexure of the *Cubit*, her Pain greatly encreased, and she restless and impatient; so that I had much Difficulty to reconcile her to admit the young Man, who had bled her, to give Attendance; nor would she upon any other Terms, than my Promise of standing by, at the Times of Dressing.

The Tumour, by the next Day, being now thoroughly *suppurated*, and the Matter fluctuating, a piece of the *Velvet Caustic* was laid on, and continued all Night: When early the Day following, a Lancet was thrust thro' the *Eschar*, and about half a Pint of a well concocted Matter let out, upon which she grew easy; the Fever, Thirst, Inquietude, and other Symptoms now going off.

The Day after the Discharge, a Fomentation was made use of to comfort the Parts, strengthen the relaxed Fibres, and breathe forth the Humours, *ex Decoct. Summit. Centaur. Flor. Chamæmel. Melilot. Sambuc. &c. cum tantillo Spir. Vini Camph.* and as the same was capable of bearing *Compress* and *Bandage*, to promote Agglutination of the Sinuosity; which after about a Week's Time, the Discharge daily lessening, and the *Eschar* thrown off, was accomplish'd in the upper Part; but the *Sinus* depending, and running down over the *Radius internus*, or *Flexor Carpi*, would not unite, but laid us under a Necessity (tho' I did all I could that I might obviate farther Clamour, to prevent it) of dilating, and which I discovered, running above three Inches in Length. When I had, in the mildest Way possible, apprised her of the absolute Necessity of such Proceeding, she at last complied, and the *Apparatus* being got ready, with proper Attendants, after I had passed in a *Director*, and with the same bearing tight up against the Skin, as much as possibly towards the outside of the Arm, for avoiding the tendinous Parts and Blood-vessels, the Surgeon with his Knife cut along the *Sulcus*, till we had opened the whole Length of the Cavity, when dressing up with dry Dossils, rolled in the Powder of fine Bole, (by Reason of the

the *Hæmorrhage*) and a large Pledget of Tow, wrung out of *Posca*, and sprinkled thick with *Farina Fabar.* we rolled up the Arm, securing it in the Napkin upon a Semiflexure.

The Work being now fairly in View, the second Day after, loosening the former Application, the recent Wound was dress'd up daily with softer Dossils dip'd in the warm *Liniment* of *Arceus*: In some Parts, where the *Fascialis* lying long expos'd, was grown putrid and sloughy, strewing on a small Quantity of the *Præcipit. rub.* till digesting off, and the Ulcer mundified, the same Medicine, together with my *Cerate* of *Lapis Calaminaris* and dry Lint, quickly after accomplish'd the Work, as well of *Incarnation*, as *Cicatrification*; and the Surgeon, who, I am well satisfied, was blameless, as to any Mal-management of the Lancet in the letting of her Blood, was not only obliged to stand the Censure of his Neighbourhood; but to prevent the farther Clamouring of his Patient, (much contrary to my Persuasion) to bestow near six Weeks Attendance for the poor Pittance of half a Crown he had at first received, for the unfortunate Operation.

I well remember an Accident, of Kin to the abovemention'd, befel my self many Years ago; when, by the Advice of a Physician, I bled a gross-habited Patient, then labouring with an *Erysipelas* on the Face and Neck, from whence the bilious Effervescence was presently translated to the bleeding Arm; and it was not without great Difficulty and Pains that I kept off a *Gangrene*, and secur'd the Limb from a *Mortification*; which had such Accident ensued, or the Patient miscarried at that Juncture, I need not tell you, Gentlemen, who have perhaps some of you had Experience thereof,

thereof, on whom the Ignorant would have cast the Censure. And thus far in the Way of Hint, or Animadversion upon the ill-timing, rather than inartificial Section of a Vein, in letting Blood, to shew those who are less acquainted therewith, upon how slippery a Foundation, at some Times, stands the Reputation of every Professor of this Art.

The last and indeed the worst Way of Termination of this *Tumour*, as we have already observ'd, is that by a *Gangrene* or *Mortification*.

This being then the most dangerous of all others, and by which the poor Patient oftentimes compounds for his Life, with the Loss of a Limb, and very frequently lays down Life it self, it will most highly behove the Artist to use his utmost Endeavour to obviate the same.

When therefore the Matter of this *Tumour* can neither be repell'd, where safely attempted, *diffus'd*, or brought to *Suppuration*, but that the Swelling still increaseth; it must happen at length, that not only the smaller *Tubuli*, but the larger Vessels, will be obstructed by the great Compression, the Juices therein stagnating; the native Heat, by this interrupted Circulation, will quickly after be overcome, and a putrid one succeed in its Place. The Signs of which are first of all a Change of the bright Redness or Inflammation, for one of a more dusky or livid Complexion, which is owing to the Stagnation aforesaid: The *Tumour* begins to subside on a sudden, the *Tension* going off, and the musculous Flesh grows flabby; the Spirits having undergone their utmost Expansion, and being now put as it were to Flight, a Coincidence of the Parts, which were before kept elevated by such Expansion, must ensue of Course. A *Stupor* or Numbness comes on from those Spi-
rits

rits having abandoned their wonted Places of Residence; an Inactivity of the Limb, or Inability for Motion, from the same Cause. *Vesications* arise from the putrefactive Ferment now beginning, and the stagnant Blood deprived of its natural Heat, and balsamic Quality, runs out into an *ichorous Cruor*, which ouising forth the *Capillaries* under the *Cuticula*, raises the same up into small *Bladders*, after the Manner as in some highly *malignant* Fevers, also in some kinds of the Small-Pox, where the *Compages* of the Blood is broken, we find the like *Bladders*, implete with such a corrosive *Serum*, and a *Gangrene* of the Parts underneath. Nor is it strange, when the vital Union is thus dissolv'd, that Part, which without *actual* or *potential* Fire, could scarce be separated before, should now give Way, and very easily be lifted up by the putrid *Ichor* aforesaid.

It is from this parting of the *Cuticula* from its subjacent *Cutis*, in Infants called *Still-born*, a near Judgment is to be made, how long the *Fetus* has been dead; but I forget my Subject.

So soon as ever these Symptoms begin to appear, let the Part be *scarified* more superficially or profoundly, according to the Sense thereof; let a strong *Lixivium* of Wood-Ashes, boil'd up with some of the hottest of those Plants before-mention'd, with others, as the *Summit. Absynth. Abrotan. Pulegii, Rorismarini, fol. Laur. Flor. Chamæmel. Lavendul.* and the like, be used as a *Fomentation*: Double Flannels being strongly express'd out of the scalding or boiling Liquor, into which one half of some good strong Wine, a fourth of Brandy, or an eighth of its rectified Spirits with *Camphire* (ʒj. to ℥ij.) has been poured, upon taking it off the Fire, or a little before, so

the Liquor be boiling hot altogether, it is sufficient.

After half an Hour or more thus spent, let your Scarifications, which have been made so deep as to fetch Blood, and in making which you are to be careful, that you observe the Course of the *Fibres*, avoiding the large *Blood-vessels*, especially the *Arteries*, as also the *Tendons*; let these, I say, be fill'd up with small Dofils of Lint press'd lightly out of your *Ol. Terebinth.* made hot, with about a third Part of the *Tinct. Myr. and Aloes*, over which a Compress or Pad of Tow, press'd out of your camphorated Spirit, or, as is now customary among us, the *Theriaca Lond.* spread thick upon a Cloth, and applied in the Manner of a *Cataplasm.* Some take the Residue of the Decoction, and pulping the same, mix it with the *Theriaca*, whilst others boil up Oat-meal in strong Beer, to the same Consistence; with which, if they would admix some of the fine Powders of the *Fomentation Plants*, such as the *Flor. Chamæmel. Melilot. Centaur.* or the like, I should indeed think the same preferable to the *Theriaca* by it self, which soon grows dry and hard, and lies uneasy.

These Dressings are to be renewed once at least, if not twice a-Day, as Occasion requires, till there appear Signs of *Digestion*, or that *Matter* shew it self, either in the scarified Places, or round the Edges of the *gangren'd* Part, where the same is stop'd and begins to separate; at which time your Dressings must be milder; as the *Linim. Arcæi* runs down with a little of the said *Ol. Tereb.* or the *Bals. Tereb.* with more or less of its Oil, as the Sense of the grieved Part shall require; taking Heed always, that the Strength of your Medicaments at such Times are thereunto proportion'd:
For,

Sect. I. Of the Phlegmon.

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For, as the Disease will get Ground under the less warm and spirituous, so the over-hot and sharp, by exciting unnecessary Pain, will stir up some new and troublesome Symptom. 'Tis a Sign the Strength of them is duly qualified, when your *Digestion* appears laudable, and the Patient feels only a kind of agreeable Warmth for some time after; thus, if immediately upon Dressing, he should make no Complaint at all, or be perceptible in no wise thereof, 'tis an Argument, you are upon an Extreme one way; as if the Heat and Smart continue, or prove intolerable, you are then, 'tis to be fear'd, upon the other.

When, by these means, your Putrefaction is corrected, and your *Sloughs* cast off, the Ulcer must be treated as in those with Loss of Substance shall be directed, where we come to speak of Ulcers. But should the *Gangrene* resist your utmost Skill, and bid Defiance, as it were, to your best Endeavours, getting still more Ground, and spreading or turning into an absolute *Mortification*, what then remains? Why truly nothing, that I know of, unless, with the Poet, to pronounce,

*Immedicabile Vulnus,
Ense recidendum est, ne pars sincera trahatur.*

The Manner of *Amputation* you will find in several Authors, who have professedly treated of that and many more *Chirurgical Operations*: Among others, *Monsieur Vauguion*, *Le Clerc*, *Charrier*, as also in the Works of that excellent Practitioner *Guliel. Fabricius Hildanus*; likewise Mr. *Richard Wiseman*, in his *Chirurgical Treatises*, has given ample and good Instructions for the younger Artists to pursue. Having met however with one Example very particular in some

of the Circumstances, relating to this Matter, I shall communicate the same as follows.

HIST. III. An elderly Gentlewoman, upwards of Seventy, of a thin, dry Habit, yet all her Life-time strong and healthy, being seiz'd with a *Fever*, but unacquainted with *Medicine*, intending the same should take its Course, went on in her own Way with Posset-Drink, and other suitable diluting Liquors, for her Thirst, but without any *Alexipharmic Medicine* whatsoever, that might have assisted *Nature* in promoting a *Diaphoresis*, or expelling the febrile Matter through the Pores. After few Days, the same being translated to one of her Legs, raised suddenly a *Tumour* with *Inflammation*, of the *phlegmonoides* Kind, or therewith partaking of the *Erysipelas*; which, increasing with great Pain and Throbbing, as if tending to apostemate, she sent for me. The *Tumour* was seated on the Inside, a little above the Ankle. Considering its Cause, which was internal, together with the Subject, a Person so far advanced in Years, I was apprehensive of some ill Consequence, but endeavour'd what I could to assist *Nature*, and forward the *Maturation* with the Pultis of Figs, thoroughly boil'd and pulped, and about a third Part of *Theriaca*.

The Day after, the *Tumour* sinking on a sudden, and the Colour turning livid, I perceived a *Gangrene*; upon which account I scarified all round, encompassing that part of the Leg with the *Theriaca* by itself, as hot as she could suffer it, and at Night sent in a Decoction of the Plants beforementioned, made in the common *Elixivium*, with which the Part was well fomented, and dress'd up as before.

The next Day, tho' the *Gangrene* seem'd to have made no Advance upwards, yet was the whole
Foot,

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Foot, as it were, numb'd and discolour'd, the Skin feeling hard and dry like a Piece of Parchment; the Extremity hereof, I mean the Toes, cold and insensible; when perceiving the Case desperate, I would have had a Consultation, but was denied the Assistance either of *Surgeon*, or *Physician*; so riveted was the old Gentlewoman's Prejudice, as well as that of her Children's, against either of those Professions: So that scari-fying farther in several other Parts, till some little Effusion of Blood was thereby obtain'd, and washing the Incisions with an arm'd Probe dipt in a hot Mixture of *Ol. Tereb. Tinct. Myrrh.* and a little of the *Ægyptiacum* melted down there-with; after I had caused the Limb to be well fomented, I applied a Wad of Tow, express'd from the hot camphorated Spirit, and roll'd up the whole Leg upon a Stupe, wrung out scalding hot from the said *Fotus*. This done, I told her Friends, there was no Hopes of her Life, but by the Loss of her Leg; and considering all Circumstances, so very little, even that Way, that I could, by no means, persuade her to such an Enterprize; *Nature* being, as we say, worn out, the Principles of Life dissolved, and the Lamp upon its Extinction, through the want of proper *Pabulum* to continue the same. I then went to her Bed-side, and acquainted her with her Danger, which she received with a Christian Fortitude and Presence of Mind, submitting chearfully to the Sentence. I would however have persuaded her to have taken some warm cordial Medicine, to keep up her Spirits, and assist *Nature*, some little while at least, in subduing the Putrefaction; but she would hear of nothing that way, except a Morfel of the *Conf. Mitbridat.* dissolv'd in a Glas of Canary twice a-Day.

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Her

Her *Pulse* was high and strong in her Wrist, notwithstanding the languid and obstructed Motion of the Blood in the Part affected; *Nature* now using her utmost Efforts, and struggling hard for the Mastery. The chief Symptoms she complain'd of, were the recurring *Rigours*, which made the Bed shake under her, at other times neither *Tremor* nor *Subsultus* attending.

In this Condition she lay for three Weeks, the *Mortification* advancing so slowly, that it had not got up to the Calf; for, I pursued it daily with fresh Incision to the quick, and my spirituous Medicines in the same, after well fomenting, encompassing the Limb with the *Tberiaca*, made hot, and spread on Cloth like a *Pultis*. The whole, especially that Part that was *sphacelated*, growing daily more hard and dry, emitting not a tenth Part of that *cadaverous* and *putrid* Stench, attending the more corpulent, moist, and flabby Habits under the like Circumstances, but appearing rather like a Limb long time impaled, black, dry, and shriveled, occasioned in some Measure by the *Embammata*, made Use of to preserve the *Compages* as long as possible, and to prevent the Increase of the Putrefaction; for finding her likely to hold out some Time longer, I had for my own Ease and Security, prepared a Sort of *Condiment. ex Pulver. Thuris, Myrr. Aloes, Benzoin*, and the like Gums, with which, having cut deep into several Places of the Foot and Leg below the Calf, I filled up my Incisions; then dipping a Cloth, like the Sparadrap, in a Solution of the said Gums, with some of the *Resina Abietis*, I surrounded the Limb, thus, as it were, *embalming* her before Death.

At about five Weeks end, such was the Vigour of her Constitution, and so wonderful this natural

natural Struggle, as I may say, between *Life* and *Death*, that the Mortification having been at a Stand for five or six Days, at last began to separate at the usual Place of *Amputation*, tho' not truly circularly, yet obliquely so, quite round almost to the Bones: Upon which, I renew'd my Endeavour to help forward this great Work, cutting away some Sloughs that adher'd to the upper Part, and filling up the Vacuity with large Dossils of soft Tow dip'd in the hot Oil of *Turpentine*; till the Digestion appearing more laudable, and in larger Quantity, the complaining likewise of the Heat and Sharpness of the Pain, I added a little Lini-ment to soften the same, strewing some of the *Præcip. rub.* where the Sloughs requir'd; and encouraging the Heat, by the Stupes, twice a-Day renew'd, from which she perceived always great Comfort, the *Rigours* returning less frequently, so that I began to conceive great Hopes of her Recovery. But it happening in the Night-time, that a *Slough* loosening on the Inside, upon the upper Part, a Branch of the *Crural Artery* running down by the same, was open'd, and a large Quantity of Blood discharg'd, before any Discovery was made thereof, with more still before I could come to her Relief; when having provided what I thought necessary, viz. *Restringents* of several Kinds, the *Bill Forcipes*, with the *cauterising* Irons, I hastened to her, and taking off the Dressing, clearing away the Blood, and putting under her some fresh Linen, whilst, with a Button of Tow held close to the Bleeding-vessel, I secur'd any farther Effusion of this Treasure of Life; directing in the mean time a Fire to be got ready, and the Iron put into the same. Whilst this was doing, I attempted with my *Forceps*, arm'd with its *Ligature*, to take up the Vessel, but found the End of
the

the same so deep buried in the musculous Flesh, that not succeeding this way, so soon as ever the Iron was ready, I thrust up a Button *Cautery* against the same, and searing up its Extremity, stop'd instantly the Flux; then dressing up as formerly, left her for that time, with her usual Refreshment, a Glass of Sack and a Toast. Returning again in the Evening, I found her *Pulse* languid, and her Spirits much depress'd, with a *Rigour* then upon her; she took some more of her *Mitbridate*, and another Glass of Wine.

The Day following, I perceiv'd the *Digestion* more crude, the Flesh also in the Ulcer less florid, but a thick Crust upon the Part covering the Mouth of the Vessel; sprinkling my *Præcipit.* upon the *Sloughs*, still adhering in several Places, and adding somewhat more of the *Ol. Tereb.* I dressed it up again, forbearing my Fomentation, for fear of renewing the Flux of Blood by the Heat thereof.

The next Day, I clipp'd off several Pieces of the rotten musculous Flesh, and with my dissecting Knife made way for the Saw all round, dividing some little Fragments with its Point, with the Back of which I also raised off the *Periosteum*, intending, if I could recover the *Digestion*, to have taken off the mortify'd Limb the Day after; but so fatal, alas! was this unhappy Accident, that the *Rigour* returning with greater Severity than ever, was quickly after attended with universal *Spasms*; and in the Middle of the Night she went off convuls'd, who before seem'd very likely to have (and I believe verily, had otherwise) surmounted all her Difficulty and great Danger, unless the Discharge from the Stump, before it could have been brought to a *Cicatrix*, had obstructed the desir'd Success.

A Case

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A Case somewhat like, and attended with a still more surprizing Success, I shall here insert, as I find the same communicated to the Royal Society by Mr. *Calep*, together with Mr. *Cowper*'s Remarks thereon.

• The Wife of *Thomas Stephens* of *Maidenhead*, HIST. IV.

• in the County of *Berks*, (aged about sixty-two
• Years) was seized with a Fever about the latter End of *November*, 1697. Her Physician
• used various Remedies to remove the same,
• which after fourteen Days, terminated in a Tumour and Numbness in her left Foot, both which
• did by degrees creep up her Leg, and half way
• up her Thigh. A Fomentation was order'd by
• her Physician, *ex herbis Centaur. Hyper. Absynth. &c.* boiled in a strong *Lixivium*, and after
• fomenting, he order'd them to anoint her
• Foot and Leg with the *Ol. Terebinth.* wherein
• *Galban.* was dissolv'd, or the *Galbanetum* of
• the Chymists; this Method they had used
• daily for a Month before I saw her. Coming,
• *Jan. 3.* 1698. from *Henly* upon *Thames* (where
• I then lived) to see some Friends and Relations I had at *Maidenhead*, they desired me
• to see this poor Woman, which I did, and
• found her in the following Condition; viz.
• Her Foot and Leg cold, insensible, withered,
• hard as if dry'd in a Chimney, and of a dark
• tawney Colour. Her Knee was swell'd, and
• had several large dark Spots upon it, which
• pitted when press'd with my Finger. There
• were several Discolourations in the Skin half
• way up her Thigh. She complain'd of great
• Pains, especially a Nights, in her Knee and
• Thigh, yet could not feel me when I touch'd
• these Parts. Her Fever was again encreased,
• and she was *delirious* at some times. She begg'd
• heartily

' heartily of me for Help ; but alas ! how could
 ' I propose to relieve her ? Nothing could but the
 ' taking off her Thigh ; which she would not
 ' consent to. I was not sorry for her not admitting
 ' that Operation, because I could not expect any
 ' Success in the performing it, by reason of her
 ' Age, Weakness, &c. so I took leave of her,
 ' supposing I should never see her more. I advis'd
 ' her Friends to continue the Use of the Fomen-
 ' tation, which they did almost Night and Day.
 ' About a Month after, I coming to *Maidenhead*,
 ' was surpriz'd to find this poor Woman alive :
 ' There was now a Discharge of a black fetid
 ' Matter, at a small Orifice about the middle of
 ' the Inside of her Thigh ; which Orifice I en-
 ' larg'd to make a better Discharge for the Mat-
 ' ter. I likewise cut into a Tumour that appear'd
 ' upon her Knee, but found nothing in it but
 ' Wind. I then took Leave of her as before,
 ' advising them to continue fomenting daily. A-
 ' bout a Month or five Weeks after, I came to
 ' *Maidenhead* again, and found her alive, and to
 ' my Admiration saw how Nature had made a
 ' perfect Separation of the mortify'd Flesh from
 ' the sound, quite round the Thigh, the Bone of
 ' the same lying wholly bare above the Breadth of
 ' four Fingers, and deprived of its *Periosteum*.
 ' The Flesh above was fresh and florid, and had
 ' good white Matter upon it. I now persuaded
 ' her to let me take off her Thigh, which I did,
 ' about a Finger's Breadth in the sound Flesh,
 ' (because the Flesh ran tapering down to the
 ' Bone) by which I made the Stump pretty even.
 ' The Bleeding was little, by reason that the Veins
 ' and Arteries (which were eaten asunder by the
 ' mortifying Matter) Nature had closed again ; I
 ' dress'd the Stump with *Pulv. restr. mixt. cum Alb.*
 ' Over.

• *Ovor.* spread upon Pledgets, and dipt in *Ol. Te-*
• *reb.* hot. The next Dressings I used Digestives
• and performed the rest of the Cure according to
• the Rules of our Art.

Upon the foregoing Passages, Mr. Cowper,
I perceive, made the following Reflection.

• About the Beginning of *October* last, I hap-
• pen'd to be at *Maidenhead*, where I saw the
• Woman, whose Case is here related: She ap-
• pear'd to be very decrepid, and would have
• shewn me the Stump of her Thigh, but the
• Coldness of the Weather, she said, would make
• it uneasy to her. I felt it through her Clothes,
• and the End of the Stump seem'd to be not above
• four or five Inches below the Trunk of her Body.

• Since I have so frequently found the large
• Trunks of the Arteries of the Thighs and Legs
• of aged People petrify'd, as I have mention'd,
• (*Transf.* N°. 280.) and most commonly in those
• who have had Gangrenes in their Legs, &c. I
• am apt to suspect the like happen'd in the crural
• Artery of this Woman, which, like a Ligature,
• did at length put a total Stop to the influent
• Blood, below that Stricture.

Before I quit this Subject, it behoves me to
inform you of some late Accounts transmitted
to us, by Persons (some of them) eminent in the
Profession, concerning the great Efficacy of the
Cortex Peruvianus, in stopping a Mortification
from an internal Cause: And though I cannot be
so positive as a certain warm Writer in its De-
fence, to assert it specifical thereunto; or that it
will never fail you, in which I should speak con-
trary to my own Knowledge: Yet I would not
have you omit any Opportunity of making the
Experiment, or of giving half a Drachm, two
Scruples, or a Drachm thereof, with four or five
Spoonfuls

Spoonfuls of some cordial, volatile, alexipharmic Julep; and that once in so many Hours, where the Stomach will bear it, till the Patient has taken an Ounce or two of the same; and afterwards Night and Morning, as it is given to put by, and prevent the Return of an Intermittent, especially where you find it answer, till he has taken so much more. The Method I have used, has been the following.

R. Aq. Laet. Alex. ℥i℥. Theriacal. ℥℥. Syr. Croci. ℥ij. Sal. Vol. Ol. Gut. xx. Pulv. Cort. Peru. opt. ℥ij. M. f. Haustus.

When it happens to slip through the Body, you may add a few Drops of liquid Laudanum, or give a Morfel of *Conf. Fracast. S. M.* in the Intervals. But more of this Remedy, as well as of the Malady, for which of late it has been so strenuously recommended, I may possibly ere long communicate to the World, in some Remarks upon a short Account of Mortifications lately published.

And thus much for the first of our general Tumours, the *Pblegmon*; in discoursing whereof, if I have been too prolix for the Term *general Idea*, I hope to make you some Amends in my Account of the rest, there being some Things mention'd here, that I could not well avoid, which may probably be refer'd to hereafter, in our Discourse of them.

Of an ERYSIPELAS.

Erysipelas's Signs and Cause.

The *Erysipelas* is the second of the general Tumours, taken notice of by the Antients, deducible

ble from *Choler*, as the other from *Blood*, according to their Sentiments: We shall chuse to call it the Offspring of a *bilious Serum*, (pure *Bile* producing rather an *Icterus* or *Jaundice* than an *Erysipelas*) diffused from the capillary Arteries, to the Surface of the Skin, among whose Diseases we have reckon'd it, in our Treatise *De Morbis Cutaneis*, wherein we have said so much as to its Nature, Cause and Cure, that we must avoid, as much as may be, a Repetition of what is there deliver'd, and shorten our Discourse upon this Subject.

We define it, however, a *painful Swelling of the Skin*, of a *yellowish red*, but not so intensely as the foregoing, accompanied with some *Tension*, *pricking and burning Heat*; *receding upon Pressure*, and presently again returning; attended also with a *feverish Indisposition*, and *light Shivering*, though sometimes unobserved, at the Time of its breaking forth of the Skin; of which feverish Ferment it is very commonly the critical Production; Nature taking this Way by the *bilious Effervescence*, to free herself of some intestine Enemy, throwing him out by the *miliary Glandules* thereof; as in the *Pblegmon*, other *morbid Particles* were discharged upon the Interstices of the *Muscles*, or more fleshy Parts: And as the *Choler per se*, when unduly secreted by the *Glandules* of the *Liver*, or when discerned, stop'd in its Journey to the *Duodenum*, regurgitates into the *Blood*, which circulating round the Body together therewith, it tinges the whole Surface thereof with a *yellow Complexion*, there exciting by its Salts, an *Itching* frequently, but without Pain; so here the *bilious Serum* diffused only by a *critical Translation*, into some particular Part thereof, by reason of its *Heat and Acrimony*, stirs up there-

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in a tingling Smart, and burning Heat, painting the Skin affected with a yellowish shining Redness, or a Colour that way inclining.

*Distin-
guished
from other
Inflamma-
tions.*

From what I have said already, I think this Disease may be distinguished from the *Pblegmon*. However I shall lay down this farther Note of Discrimination, that as in the Distemper under present View, there is both less *Tension*, *inflammatory Redness*, and *Pulsation*; being merely an Affect of the *Cutis* or Skin, there must be much less also of *Tumescation*; so little truly, that at some times both *Measles*, *Scarlet Fever*, and *flux'd Small Pox*, have been taken for this Disease; from all which it is, however, enough differenc'd, to be distinguished by an heedful Artist. For, altho' in the *Morbilli*, the *Febris scarlatina*, and the *Erysipelas*, the *Cuticula* is thrown off in the like branny Scales, at the Declension of the Disease; yet it is easy to know the first, by the Irregularity of their Figure, and Distances from each other in the *Eruption*, before they run, as it were, into one. In the second (the *Scarlet Fever*) the *Inflammation* is indeed continuous, but spreads, in a manner, universally over the Surface of the Body, especially the Trunk thereof; whereas the *Erysipelas* is limited to some particular Part or Member, as the *Arm*, *Leg*, *Face*, *Head*, and the like, with an Elevation of the Skin, as was observ'd but now, and which is wanting always in those other *cuticular Eruptions*. So that the nearest resemblance to this Distemper is given by a *flux'd Pox* when an *Erysipelatous Efflorescence* oftentimes appears on the Face, with *Tension*, *painful Redness*, and *Tumescation*; but here also an accurate Enquiry by the Touch discovers a *Rugosity*, if not the *Tubercula* themselves, under the *Cuticula*; and a farther

ther Survey of the Body, as well as an Enquiry into the Symptoms, will shew some scattered *Exanthemata* here *distinct*, however *confluent* upon the Face.

Having describ'd this *Tumour*, with its *Diagnosticks*, I think it little material to enlarge farther thereon, much less to take Notice of what the Antients call'd the *alimentary* and *excrementitious Bile*, or *Choler*, with the several Degrees of the latter, as the *Vitelline*, *Porraceous*, *Æruginous*, being only a Degeneracy of the said Juice or Humour to a farther Degree, owing to bad Diet, or some Trespass in the other *Non-naturals*; and however subverting the Concoctions, or otherwise polluting and depraving the *Crafsis* of the Blood, laying a Foundation for other morbid States, are not so much concerned in this, whose *Prognostick* therefore and *Cure* we subjoin thus.

An *Erysipelas* carries the greatest Danger, when *Prognostic*. falling upon the more noble Parts, or thereunto adjoining, as the *Head* or *Face*, the *Neck* and *Breast*; especially if the Matter chance to return inwards, or is repell'd by some cold *Topic*, as also if the *Inflammation* comes upon some *Wound* or *Fracture*. The true and natural Way of Termination for this *Tumour* being by *Transpiration*; all others hazardous, and often dangerous.

In the *Cure*, the *Regimen* for *Diet* and the other *Non-naturals* being much alike, or the same with that for the *Pblegmon*, we need not, I think, enlarge thereon.

Bleeding, however forbid by some, in the true *Cure*. and exquisite *Erysipelas*, is now commonly practised, if the Pulse forbids not, or that there is no Suspicion of Malignity, which frequently occurs in this Disease, as is evident by the *Symptoms* accompanying the *Fever*, such as *Horrors*, *Inquietudes*,

tudes, *Vigiliæ*, and sometimes *Coma's*, *Deliria*, with others of the nervous Kind; in all which the *Fever* itself, with the vital Indication, are principally to be regarded.

As for *local* or external Application, it is beyond Controversy, that we ought to avoid all *cold*, *repelling*, or *restringing* Medicines; but why *unctuous* of all kinds, and without Exception of Cases, as they are by some, should be forbidden, I cannot see; nor perhaps shall we find a better, especially upon the remote or extreme Parts, than are the *Ol. & Unguent. ex Floribus, cum Cortice interiore atque Foliis, Sambuci præparat.* which, by relaxing the *Fibrillæ*, abate the *Tension*, and by their *anodyne discussive* Qualities, breathe forth the impacted Humour, and thereby take off the *Pain* and *Inflammation*.

With one or other of these, I have frequently, in the like Cases, ordered a little of the *Spir. Vini camphorat.* to be mixed; for such however who are prejudiced against the Ointment, as also where the Disease is seated near the Brain, or other noble Parts, a strong Infusion of the *Flores Sambuci* in camphorated Brandy, makes an excellent *Epitheme* in these Cases; as does the *Decoct. Salvicæ cum Sapone Veneto*, directed by *Riverius*; likewise the following, which I have often used with Success.

℞ *Aq. Calcis Spir. Vini camphorat. ana ℥ij. Saponis Castil. 3j. f. Solutio instar Epithematis utenda, ad Partes inflammatas.*

Instead of the *Aq. Calcis*, I have often substituted that *ex Floribus Sambuci*. And sometimes this *Cerate*, especially where the Cuticle is fretted, or the Parts excoriated.

℞ *Ung. Sambuc. ℥ij. Cerae flavæ 3℔. Camphor. 3℔. liquecant simul pro Cerato.*

And

And altho' *Bleeding* has at some times, in these Cases, been disputed, yet it is agreed on all Sides, that towards the Declension of the Disease, *Purgation* with some *Cholagogue* Medicament is absolutely necessary; in which Number *Rhubarb* has the Preference: Likewise after that, *Cassia*, *Tamarinds*, *Mirobalands*, infused or decocted; *Manna* also is allowed by some. The Compounds ready prepared, are the *Syr. Ros. Solut. de Cichor. cum. Rheo*, *Elect. è Suc. Rosar. Diaprun. simpl. &c.*

These, I say, are to be given and repeated between whiles, after the State; whilst Clysters supply their Place at the Beginning, Increase and Height of the Disease, if attended with an overcostive Body; and through all the several Stages, as we just now remarked, let the vital Indication be still in view, and strictly regarded, fortifying the Spirits with proper *Cordials* against any latent Malignity in the Blood, or in case of the Humour retroceding.

The Necessity of Purgation upon the Conclusion of these *inflammatory Tumours*, and that repeated at proper Intervals, is very evident, and more than a Piece of Formality, as some of our Patients call it, or a Penance unnecessary, if we consider the diseased Habits often left, where this Precaution more especially has been slighted or neglected, arising from the putrid and foul Particles sucked up in the Circulation, for want of a sufficient *Despumation* of the Blood, and their Discharge by the late *critical Inflammation* or *Abscess*, still remaining therein. And thus we see daily the dire Effects of the *Small-Pox*, *Measles*, *Scarlet Fever*, and other *inflammatory Disorders* of the Blood, falling heavy upon the *Lungs*, and laying the Foundation of the *Pulmonary*

nary *Phthiriasis*, or contaminating the *nervous Fluid*, bringing on Convulsions. How many have grown *strumous*, how many hectic, through this Neglect, I need not surely stay to convince you, who have known (doubtless some of you) that the drying up even of a Scab, has had this mischievous Consequence, where due Care has not been taken by proper *Regimen*, particularly *Bleeding* and *Purgation*, to provide against it. But giving one History relating to the Disease in general, that we have been now describing, I shall hasten to the *Oedema*.

HIST. V. A Butcher in *Spittlefields*, of a full Habit, strong and lusty, after an Evening's Draught as usual, returning Home, was taken suddenly with great Shivering, like the Fit of an Ague, upon which he was put to Bed, with some of the Good-Womens Medicines, the *Venice-Treacle* or *Mithridate*, the *Treacle Water* also, and *Syrup of Saffron*, and a Load of Cloaths upon his Breast, to force out a Sweat; under which he had not lain long, before he complain'd of great Pain in his Head, burning Heat, and tingling all about with violent Vomitings of a bilious Humour, by the Force of his Retching, pumped out of the *Duodenum* into the Stomach, green as *Leeks*; from whence that Humour, among the ancient Writers, had its Name *Porracea*; and before Morning (so very acute was this Disease) he grew delirious.

The Apothecary being sent for, perceived a Tumour with Inflammation on the fore and upper Part of the Head, reaching down to the Eyebrows, which were swelled up so that he could not see, nor lift up the same, the Inflammation still increasing, and extending itself as well downwards over the Nose, and other Parts of the Face, as higher upwards on the Scalp.

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He presently let him Blood, and administred a lenitive *Potion*; the second Day I was called in, and perceived a true *Erysipelas* upon the *Head* and *Face*, the *Fever* high, great *Thirst*, *Anxiety* of *Mind*, *Restlessness* of *Body*, with *Oppression* on the *Præcordia*, a *fluttering languid Pulse*, and *Suspiria*, or *Respiration* doubling and interrupted.

Being come to his Senses, as we say, he complained of great *Pain* and *Giddiness*, with *Numbness* of his whole *Head*, attended with *Heat* and *pricking Pain* upon the *Parts* inflamed.

Upon which, for the Relief of the *Brain* and its *Meninges*, or their Security, in case the peccant Matter should have fallen back upon the same, before it had spent itself by the *Pores*, I immediately ordered *Vesicatories*, one large one between the *Scapula's*, and one behind each *Ear*, those *Emunctories* of this noble Part; with the following *Bole* to be swallowed every six Hours, taking four or five Spoonfuls likewise of the *Ju-lap* after each, and as many thereof betwixt whiles, when faint.

℞ *Conf. Lujul. Pulv. è chel. Canc. C. ana. ʒj. Pulv. rad. Rhei ʒss. Croci sal. Absinth. ana gr. V. Syr. Limon. q. s. m. f. Bolus.*

℞ *Aq. Flor. Sambuci ℥ss. Aq. Theriacal. stillat. ʒiiij. Syr. Croci ʒss. m. f. Julapium.*

In the Evening he grew again *comatous*, and so continued most part of the next Day, notwithstanding a plentiful Discharge from his *Blisters*; but his *Pulse* beat strong and high, wherefore I ordered more Blood to be drawn off, which with the Urine shewed the greatest Degree of *Inflammability*; the first, after it had stood some time, appearing with a *viscid, yellow,*

sizy Film, of great Thickness, with a *Serum* near resembling the Colour of *Bile*: The latter much of the same Complexion, being tinged or saturated with the like Salts. After this I ordered two more *Blisters* on the inside of the Arms, with *Leeches* to his Temples, and for a farther Revulsion of the Humour from his Head, the following Clyster, notwithstanding the *Rhubarb* in his Boles had procured him a Stool or two before.

℞ *Decoct. com. pro Clyst.* ℥xij. *Mel. Mercurial.*
Syr. Viol. ana ℥ij. *Spec. Hier. Pic. Sal. Fem. ana*
 ʒj. *m. f. Enema injiciendum circa Vesper.*

For the *Head* and *Face*, I directed a *Fomentation ex Decocto Fol. Salviæ cum Flor. Sambuci*, adding, when the same was taken from the Fire, a small Quantity of the *Spir. Vin. Cam.* this being applied with Flannels express'd from the hot Liquor, for some time, a kind of *Lixivium*, made after the following manner, was, with a fine Rag dip'd in the warm Mixture, gently rubbed all over the Head and Face, which made Way for the Razor also to pass gently over the Scalp, and laid all in View, that was before concealed by the Hair upon the same.

℞ *Aq. Flor. Sambuci, Spir. Vini Camphorat. ana*
 ʒij. *Saponis Castil. tenuiter incisi, & in eadem Mix-*
tura tepesacta soluti ʒj.

After the Head thus shaved, I fomented and gently went over the *Scalp*, which was much tumefied by the Afflux of Humour, with the Rag moistned, as before; the *Boles* and the *Pulv. Rhubarb.* were likewise continued, with the Addition of a few Grains of *Sal Nitri*, not only to temperate the Heat and *Effervescence* of the
 outra-

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outrageous *Bile*, but to take off a *Strangury* attending the last *Vesicatories*. To assuage and farther ease this Complaint, I prescribed also an Emulsion thus:

℞. Sem. 4^r. fr. Maj. ana ʒj. Sem. Papav. alb. ʒij. Amygd. d. decort. n^o vii. vel viii. Contusis affunde Aq. Hord. (in qua ʒß. Gum. Arabic. fuerit soluta) ℥iß. Colaturæ, adde Aq. Cinnam. Hord. Pæon. C. ana ʒjß. Sacch. Chrystal. q. s. & fiat Emulsio, de qua bibat Haustulum in Intervallis.

The next Day after, the *Tumour* began to subside upon the *Fore-head* and *Eye-lids*, one of which he could now open, as likewise on the *Vertex* or Top of the Head, but increas'd towards the *Occiput*, falling behind upon the Neck, as also on his *Jaws* and *Throat*, quite down to the *Claviculæ* forwards, which latter Parts I bathed with the *Soap-mixture*, melting down about a third Part of the *Unguent. Sambucin.* therewith, continuing the *Fomentation* still to the upper Parts. But on the right superior *Palpebra*, the *Tumour* still continued; in the midst of which, the *Humour* by its corrosive Quality, had formed a Sort of Crust, as from a *Burn*, under which, digesting off the outside, there lay a *Slough*, so thick, as that I was fearful it had penetrated quite through; but strewing in a little of the *Præcipit. rub.* very thin, and laying down a soft Dofil dip'd in the warm *Liniment*, with a little *Bals. Terebinth.* admix'd, the same after three or four Days cast off, leaving the inner *Tunicle* uncorrupted; which, whilst we were *incarning*, a small *Sinus* was discovered running outwards towards the *Temple*, which was laid open with the *Scissars*, and soon after healed with the other Ca-

vity, by the same Applications. Yet still the Eye-lid remained almost closed, which made me somewhat doubtful, that the *Elevator Palpebræ* had suffered by the Accident, and the same might be obstructed in its raising up the Lid; but some time after, when the Fluxion was entirely taken off, the said Part recovering its Strength, performed its Office as usual.

The *Stupor* and *Head-ach* now remitting together with his *Fever*, and the *Cuticula* beginning to peel off about his *Face*, the *Inflammation* having every where passed its State, I ordered the following *Potion* to be repeated every other Day, for two or three times; whilst in the intermediate, he still continued his *Rhubarb Boles*, which kept his Body in good Order, being otherwise subject to be over-costive.

℞ *Rad. Rhei tenuiter incis. Fol. Senæ ana* ʒj. *Tamarind. ʒβ. Sal. Tart. ʒj. coque leniter in aq. f. q. s. pro colaturæ ʒiij. cui adde Syr. Ros. solut. ʒj. m. f. Potio.*

To encourage the working of this, if occasion offered, he was ordered to drink a Draught of *Epsom Water* turned into a Whey with Milk, in a Quart of which ʒj. of *Manna* was dissolved, to be repeated instead of Posset-Drink, or Gruel, which, together with the *Potion*, gave him each Day five or six Stools.

After the first *Purge*, he grew manifestly easier, altho' some little Remains of a feverish Heat continued, for which he drank his *Emulsion* on those Days that he forbore his Purging; and which together therewith, quickly after completed his Recovery from the imminent Danger he thus escaped, being through the whole Course kept low as to his Diet and Liquors; the

the former consisting principally of his *Oatmeal* and *Barley-Gruels*, with small *Chicken-Broth*, while the latter was *Sack-Whey*, *Sage-Tea*, and the *Emulsion* abovemention'd; a *Pearl Julap* being in readiness with some Drops of *Sal. Vol. Oleos.* to keep up his Spirits when depress'd or fainting.

Of the O E D E M A.

As *Choler* was said to be of the foregoing *Tu- Oedema,* *mour*, so *Pblegm*, by the Antients, is called the *its Defini-* Mother of this, which is the third of their general *tion and Cause.* *Tumours.*

Of this *Pblegm*, they make also a *natural* and *excrementitious*, subdividing the latter into an *acid*, *salt*, and *vitreous*; but these Distinctions, as of little Use to us in our Account of the *Oedema*, we pass by, deriving the Source thereof from a *pituitous*, *lentous*, or as we may say, *ropy Serum* in the *Blood*, so made either by a *gross*, *viscous*, or *indigestible Nutriment*, or through want of *Exercise*, like the *stagnant Waters* growing *putrid* and *slimy*. Thus nothing is more common after *Fractures*, especially of the *Leg*, even in a *sanguine Temperament*, so called, than to have an *oedematous Tumour* fall upon the *Foot*; which is partly owing to a want of due *Tension* in the *Fibres* from their now *unactive State*, by which their *tonic Motion* being slackened, they are much less able to assist the *Protrusion* of the *circulating Fluids*; and partly to the *Bandage* used for securing the *Fracture*, which tho' not so streight, as to give a *Stop* to the *Circulation* through the *large Canals*, yet must needs retard the *Motion* of the *Juices*, through the smaller *Tubuli*, and lay

lay a Foundation for the Tumour we are now speaking of.

Which may be farther defined, a cold, pituitous, white Swelling, or of the same Colour with the other Parts, of dull Sense, easily giving Way to an Impression from the Fingers, but not presently (as in the two foregoing) again returning, the Impression longer remaining, like that made on a Piece of Dough, to which the Parts therewith affected are often likened.

Nor let any one wonder, that we make the Solids equally concerned with the Fluids, as they are generally in these congested and chronical Tumours; since we find that gentle Friction, and where the Case will allow, strong rubbing of the Parts, and Exercise of the same, so far as they are capable, with whatever of the like kind, restores their relaxed and enfeebled Spring, enables them very much to contract and push forward the sluggish Humour that annoys them.

Prognostic. As to the Prognostic of this Tumour, an Oedema, that is occasion'd by the Bandage, as in fractured Limbs, is usually more troublesome than dangerous; but in those arising from the impoverished State of the Blood, in the Winter Season, in gross fat Bodies, in antient People, whose natural Heat is weak and decay'd, or if attended with a Dropsy, where the same is in Danger of being extinguished, and a Gangrene to ensue, there is under these Circumstances much more Danger.

The natural Way of Termination for this Tumour is by Resolution, or being discuss'd, all others troublesome and hazardous.

Cure. In the Cure, the physical Prescription will be found equally necessary with the topical Application; by the first, to purge off the pituitous Humour, and in the Intervals thereof to mend the
cachectic

cachectic State of the Blood; by the latter, to discuss the said Humours impacted on the Parts, and to strengthen the *muscular Fibres*, that they may not be liable to an after *Congestion* of the like.

As to *Bleeding*, unless in some particular Cases, where there is *Plethora*, it is disallowed in these Sorts of *Diseases*, as rather weakening the *Crafs* of the Blood, diminishing the native Heat, already too much impaired in the diseased Part, and increasing the *serous* Humours abounding therein; but *Purgation*, as already remark'd, must take Place at due Intervals, especially such *Purges* as are prepared from proper *Pblegmagogues*, so denominated, among which are numbered the *Rad. Turbitb. Agaraci*, also the *Hermodactyli*, and *Sem. Carthami*.

The Medicines ready compounded of this kind in the Shops, are the *Pil. Cochiae*, both *maiores & minores*, *Pil. de Agarico*, *de Hermodactylis*, *Pil. Fætidæ*, *Stomach. cum Gum. Alaphanginæ*, as also the *Tinctura sacra*, which is a most excellent Medicine for this purpose, purging off the *Cachexy*, invigorating the Blood, and fortifying the Concoction.

And here perhaps it may not be amiss for us ^{Some Pur-} to observe, that as in the *Erysipelas*, we propo- ^{gati-ves} fed some peculiar Medicines, which, from their ^{preferable} Faculty of purging the *bilious* Humour, we cal- ^{to others.} led *Cholagogues*: And in this, others, we name *Pblegmagogues*, for to carry off the *pituitous*, thro' the same common Passages; we would not have it thought, that there was any Power of *Election* in the Medicine, when got into the Blood, to search for, and find out one certain Humour, passing by the rest; but that one by the Make and Texture of Parts, being therewith mixed, is better

better fitted to disentangle some certain Particles, than another, *whether by breaking the Globules of the Blood immediately, dissolving its Mass, and precipitating the Contents; or by their Stimuli provoking the intestinal Fibres, and altering their glandular Secretion, or what other Ways unknown to us, is less material*, since we know it is Fact. Let the Curious upon this Head, among others, refer to what the learned Dr. *Willis* in his *Pharmaceutica Rationalis*, has discoursed; or, if not satisfied with less, the late *mathematical* Writers in this Science, whilst we proceed. With any of the foregoing Pills \S j. of *Calomel*, or the *Mercurius dulcis*, may be mixed to very great Advantage, which is found to have a Power of dissolving those Viscidities in the Blood, and to purge off the *pblegmatic* Humours therein redundant, beyond all others.

During the Use of these, the Surgeon must foment the *Tumour* with a powerfully *discutient* Fomentation, prepared from some of the Plants we observ'd in our Discourse of the *Pblegmon* and *Gangrene*, to which, for greater Efficacy, may be added a due Proportion of *Sulphur vivum*, and *Alumen*; as an Ounce of the former with a Quarter of an Ounce of the latter, for each Quart of the same; not forgetting the *camphorated Spirits* to be pour'd in, upon taking it from the Fire. After an Hour, Night and Morning, spent in this Exercise by a Servant rightly instructed for the Work, you may roll on a hot *Stupe* express'd from the said Liquor, with a dry Flannel over it, to keep in the Heat: Before the Use of which, it may be of farther Service to rub the Part affected before the Fire, either with a *Flesh Brush*, or a Hair-Cloth, if the same can be suffered, otherwise a hot Flannel, which will conduce

conduce towards breaking the stagnating Juices, and setting open the *Pores* for the easier breathing of the same forth by the *discutient* Fomentation aforesaid.

When thus finding the *Tumour* to lessen, you need foment only once a Day, and that in the Evening, putting your Patient, presently after, into his warm Bed; and between your Times of fomenting, apply a *discussive Emplaster*, (which is preferable to the Form of *Cataplasma*, in these Affects) of equal Parts of the *Empl. de Bac. Laur.* and *Stiptic. Paracelsi*, rolling on the same.

After the Skin begins farther to relax and wrinkle, you may add some suitable *Restringent*, or increase the Quantity of the *Alumen* in the Decoction for your *Fotus*, by which the *Fibres* may be enabled to contract, to recover their *Tensity* or *elastic Force*; or you may endeavour to scatter the Remains by the Plaister above directed, and an equally streight *Bandage*, beginning from below, and proceeding upwards. But truly I must confess, I never could see a *Roller*, how dexterously soever managed, afford that Help in these Cases, as the other *laced Contrivances* I mentioned formerly, which are exceedingly commodious for dispersing the *congested Humour*, to keep off any new Inflowings of the like, and to strengthen the whole Limb.

Nor will it seem a *Paradox* that I propose *Bandage* to remove a Disease, I hinted above, was promoted by *Bandage*; since by this latter, the Compression was made only about the *Fracture*, the Parts both above and below being in the mean while at Liberty to puff up and swell, as they do frequently upon these Accidents: But the *Bandage* we propose for removing it, is to
compre-

comprehend the whole Member, beginning at the Extremity, and either *rolling*, or *lacing* equally from the *Toes*, up to the *Knee*, if the Disease affect the *Foot* or *Leg*, and from the *Fingers* to the *Shoulder*, when on the *Hand* or *Arm*.

If the *Tumour* ariseth from an internal Cause, having no Accident of *Wound*, *Ulcer*, *Fracture*, or *Contusion*, which first gave Rise to it, as in some *pblegmatic*, or if you please, *leuco-pblegmatic* Tempers, it sometimes falls out, the Method of Cure is much the same; but here particularly, the *pituitous Cacochymy* is more frequently to be purged, with suitable *Cathartics*, as just now mentioned, whilst the *Crisis* of the Blood is betwixt whiles confirmed and strengthened; for which end the *bitter Stomachics*, also *Chalybeates*, both *Wines* and *Electuaries*, with whatever may conduce by their *spirituous* and *springy Parts* to *warm*, *invigorate*, and *strengthen* the *languid Mass*, to *dry up* the *superfluous Serum*, and *restore* the *enfeebled Tone* of the *Fibres*, are very *serviceable*.

For the farther disburthening the Limb of the Load of Humour therein aggested, there have been several Inventions to sweat only the diseased Part, as by *hot Bricks wrapt up in Flannels*, or *Bottles of hot Water* immediately placed round the same; also by putting the Limb into a Bed of *Horse Dung*, an *Ox's Paunch* newly exenterated, *hot Grains* or *Sand*.

To the same Intention, I have seen likewise an *Engine* made to comprehend an *Arm* or *Leg*, and by *Spirits* burned just by, such a *Heat* has been conveyed to the same, as was thought proper.

One of these was made use of by the late King *William*, on account of his *Oedematous*, or rather *Anasarcaus* Legs.

Now, where the *Tumour* is owing to an Accident from without, and the Habit of Body otherwise in good Condition, these Experiments may possibly be made with Advantage, if the Humours are therein so impacted, as not to admit of *Resolution* by the other Method of *Fomenting*; but will scarce avail, where there is a Redundancy of the *Pituita* in the whole Habit, or where the same is clogg'd and stuff'd with a *serous Illuvies*: When instead of sweating a particular Part, a gentle *Diaphoresis* of the whole, if the Strength allows, will be more profitable, promoted especially by warm Draughts of the *Decoctum Ligni Guajaci*, the Patient being well covered, and his Body some time after defended from the cold Air.

Thus the sluggish Humour attenuated is more easily cast out through the *Pores*; when afterwards, to dry up what remains, there is scarce a better Remedy to be found than the said Decoction *dietetically* pursued for some Time: Or, till the Disease is conquered, observing through the whole Course of the same, a strict drying Diet, prepared of Meats easily digested, rather roast than boil'd: The like *Regimen* or Government being here requisite, as for those coming out of a *Salivation*. Let their *Sleep* be moderate, by all Means avoiding *Noon-day Naps*, or after Dinner Slumberings, which tend as much as any thing, to fill the Blood with a Load of crude and indigested *Chyle*, and consequently still farther to heap up the Obstructions. Let the *Air* be made warm, in the Winter-time, by a good Fire, and the Body kept dry; remembering above all Things, that as much *Exercise* is used, as the Weakness of the Constitution and the diseased Limb will allow; which, if so great as to confine

fine the Sick to the House, being neither able to walk nor ride, as supposing the Distemper seated on the *Leg*, let the same be often bent and stretched out at a proper Distance, after a *Fracture* or *Dislocation*, if any such preceded: The *Arm* in like manner, for which many useful *manual Operations* may be contrived to keep the same in Action between whiles, which as much, perhaps more than any thing besides, conduce to open the obstructed Tubes, and to invigorate the *muscular Fibres*, as Dr. Fuller, in his *Medicina Gymnastica*, has plainly evinced.

Where nothing of this Motion or Exercise can be put in Practice, gentle Rubbing is to supply the Place, as we have already observ'd.

After all, if the Patient's Circumstances will admit, and other Methods fail, he may try the *sulphureous Waters* at *Bath*, the Body being duly prepared for the same; which, together with the Use of the *Pump* upon the Part affected, have wrought the most remarkable Cures of this kind. And this shall finish our Account of a *Oedema*, unless we subjoin one History of the Case, with this farther Remark, that as the *Tumour* happens to partake of the other inflammatory ones, it is thence denominated *Pblegmonodes*, *Erysipelatodes*, or if more indurated, *Scirrholes*, as was noticed formerly of the *Pblegmon*; and accordingly requires the Applications to be more or less hot, *discutient*, *emollient*, or *restringent*. Thus the less compounded it is, especially with the two former, the hotter and more *discutient* must be the Application; if partaking thereof, the milder will suffice. In the *Scirrholes*, the *Discutients* are to be mixed with *Emollients* instead of the *Restringents*, which are here altogether omitted or left out: The same Regard being had to the others

in like manner complicated; still suiting your Medicaments to the Nature of the Disease, and Humour offending, as *Reason* shall best dictate.

An *antient Gentleman*, of a middle State, or rather still inclining to Corpulency, having laboured long Time under an *œdematous Tumour* of one of his Legs and Foot, and thereby rendered incapable of Action, as he was wont, consulted me; who, in order to his Relief, directed the following *Regimen*.

First of all, for his Limb, I gave orders that his Servant should, Night and Morning, bestow half an Hour with the *Flesh-Brush*, to rouse the Heat, naturally very languid, in a Person so far advanced in Years, and dispose the *pituitous Humour* obstructing the Passages, to a Dissipation or insensible Perspiration: After which, in the Place of a *Fomentation*, under the Use whereof he said he had formerly got Cold, and received no Benefit, I order'd the whole Limb to be enwrapped with a *Cerate*, *ex part. æq. Empl. de Bac. Laur. & Paracelsi*; rolling moderately streight with an equal *Bandage*.

Secondly, For strengthening the *Tone* of his Blood, and promoting an Expansion of the Spirits, that might assist the *oscillatory Motion* of the *Fibres*, in thrusting forward the viscous Fluid thro' their *Tubuli*, I prescribed the following Course to be prosecuted for a Month at least.

℞ Conf. Absinth. Rom. Cochleariæ hortens. ana
 ℞j. Conf. Anthos ʒss. Nuc. Mosc. condit. ʒij. Pulv.
 Rad. Ari. C. ʒiij. Spec. Diamb. pp. ʒj. Syr. &
 Conditura ZZ^{ris} q. s. ut ejusdem ope reducatur ad
 consistentiam Electuarii; de quo capiat Quant. N.
 Mosc. Maj. Mane & v^a Pom. superbibendo Cochl.
 v. vel v. Vini sequentis medicati.

F

℞ Summit.

℞ Summit. Absinth. Rom. ℥ss. Cort. Aurant. exterioris siccat. ʒij. rad. Gent. Galang. Zedoar. Sem. Cardamom. min. decort. ana ʒj. incisa ac contusa, infundantur frigide per biduum in Vini Hispanici opt. ℥j. dein decantetur Vinum absolute clarum, & reservetur ad usum.

Finding him incapable of any other Evacuation, especially the stronger, by the common Hydragogues, in order to a more gentle one *περιεργον*, such as should at the same time strengthen and fortify Digestion, I order'd ℥ss. of the *Tinctura sacra* to be taken, two Spoonfuls going to rest every Night, or each other, according to the Operation, which gave him usually a physical Stool next Morning. In the Intervals betwixt his Wine and *Electuary*, once at least, if not twice, he drank a Draught of the following Decoction by way of Diet-Drink.

℞ Scobis Lign. Guaj. ac Cort. ejusdem ana ʒss. rad. Liquirit. Rasur. Sassafras. Santal. rub. ac Sem. Coriandr. ana ʒij. infunde super Cineres calidos in aq. f. ℥iv. postea ad Medias coque; sub finem Coctionis adde Vini albi ℥ss. & per subsidentiam depurat. coletur, bibendo Haustulum Colaturæ ejusdem semel saltem, si non bis, in Die, temporibus *Electuarii* ac Vini medicati intermediis.

I forbid him Spoon-meats, but allowed the Liberty of indulging his Appetite with Flesh, altho' a little season'd, provided the same was thoroughly roasted, and taken only at his Dinner, with which he drank half a Pint of good strong Wine. For his Breakfast and Supper, instead of dry Bisquet, which he had not Teeth to manage, he had a light *Manchet*, or Bread prepared with some carminative Seeds, of which he took a Slice, and one Glass of Wine after.

During

During this, I ordered he should use what Exercise he could, by the Assistance of his Crutches, or the Help of his Servants, walking round his Garden three or four times a Day: When before he had prosecuted this Method full out three Weeks, he perceived this vast Tumour very sensibly diminished; and before the Month was up, was able to put on a Shoe he had worn formerly, but which, for many Months past, he could not get on by Reason thereof: However, discontinuing his *Regimen* for a few Weeks, notwithstanding this hopeful Prospect, and indulging himself again in his *Easy Chair*, without stirring from the same, unless to his Bed, the Swelling, which never entirely disappeared, returned again; a plain Indication that the *Lamp*, it was to be feared, would now no longer burn out bright, than this new and artificial *Pabulum* was supplied by Medicines. Upon which I was again advised with, when finding his Chest free and open, without any *asthmatic* Symptom, or seeming Obstruction in the *Viscera* of any kind, but breathing well, and taking his Nourishment in good Order; I repeated the *Tinctura sacra* for two or three Days successively, then directed a *staight Stocking* to be moderately laced on, thereby purposing to restrain any farther *Congestion* of the *pituitous* Humour, and to strengthen the Limb, so as that he might again betake himself to his stirring about, and thereby keep under such Accumulation. His *Electuary*, with little Variation, and his *medicated Wine*, or *stomachic Tincture* (to each Pint of which were now added two Ounces of the *Vinum Chalybeatum*) were afresh prescribed, his *Guajac Diet* having been still prosecuted.

When he had worn his *Stocking* about a Week or ten Days, he gained every Day upon his *Lace*, and grew stronger on his lame Side; but the Swelling being restrained upon the *Leg*, appeared upon the *Thigh*, which still encreasing, I ordered the same Work-woman to set a *Knee-piece* and *half Trowse* to the *Stocking*. Which so fully answered our Design, that coming to ride often in a Coach, and to move about the House, he got Strength enough quickly after to fling away his *Crutch*, and by the Assistance of his Cane only, to walk about as nimbly as he had done twenty Years past; his Limbs appearing Fellows, and his Distemper quite subdued, to the Surprise of his Acquaintance, who before had given him up to his *Fire-side*, as expecting, after so long a Confinement, and under the Burthen of old Age, he was scarce like to come out again.

A Year after I met him accidentally in my Walks, with a hale florid Complexion, brisk and lively, as if from the Time I left him, he had renewed his Lease. He told me, that since I saw him, he had taken a Journey to the *Bath*, and drank those Waters with great Advantage, but used neither *Pump* nor *Bathing*, against which he was prudently cautioned by some *Bath* Physicians.

It may be thought by some, I was too rash in recommending the *Stocking* and *Trowse* in so ancient a Person, and that the *pituitous Humours* being here suppress'd in the more natural Part for their Reception, might have return'd upon the *Lungs*, and hazarded Suffocation, or into the *Belly*, giving Rise to some more dangerous Obstruction.

In answer to this, I did before observe, that our Patient was no way incommoded with any Diff-

culty

culty of Breathing, nor disposed to any Species of a *Dropsy*, neither *ascetical* nor *anasarcous* elsewhere; nor should I have confided in the *Stocking* alone upon any Account, without attenuating the *phlegmatic Matter*, *concocting the crude Juices*, *warming and invigorating the whole Mass of the Fluids*, *strengthening the Tone of the Fibres*, and *giving as it were, new Life and Vigour to all the Parts*, by the *internal Regimen*, to which through the whole Course I strictly kept him.

Of a SCIRRHUS.

We come now to the last of the four general Tumours, the *Scirrhus*: And this the antient Writers will have to be the Off-spring of *Melancholy*.

What this *Melancholy* is, if they mean other thereby than a gross, heavy, and lumpish Mass of Blood, whose active Principles being subjugated, the passive or earthy, as a *Caput mort.* remain only behind, we cannot easily comprehend.

Of this *Melancholy*, as of the rest of the *Humours*, they make more than one; being several Degrees of *Aduſtion* in the *bilious Juice*, till the same degenerate into an *Atra Bilis*, as they express themselves. But I shall not stay to enlarge upon the Opinion of the Antients, concerning this *Humour*, any more than the others; since later Accounts, as we formerly observed, of the *Animal Oeconomy*, its several *Secretions*, together with that of the Nutrition of the Parts, have set these Matters in a better Light.

Cause.

This *Tumour* then may arise, for any thing appearing to the contrary, as well from the Debility or Weakness of the Parts it happens to possess, occasioned by some outward Violence offered thereunto, as from the Nature itself, or Grossness of Parts in the Humour therein deposited: For when, by such Accident, the Texture of the *Fibres* is broke, or somehow interrupted, relaxed, and their Tone thereby vitiated and depraved, the extravasated Liquor not finding a Passage by the compressed *Tubes*, indurates in a little Time about the Interstices and Extremities of those *Fibres* (in like manner as the *Callus*, at those of a broken Bone, which is nothing but the nutritious Particles shed out of the ruptured Parts, and hardening quickly after they are thus spilled, all round, like a *Gluten*, or strong Cement) where, according to its Nature, it lies quiet, or creates Disturbance, as we shall see presently.

Prognostic. Its *Prognostic* may be inferr'd from the Nature of the impacted Humour, more or less benign; the Appearance of the Knot itself; the Sense of the same, and above all, the Habit of the Body. Thus, if the extravasated Juice be mild in its own Nature, if the Induration be even or smooth, and equal all round, have little Pain, or be altogether indolent, and the Constitution well temper'd, or in a good Habit of Body, there may be no Danger: But on the other Hand, if the stagnating Humours have contracted any malign or corrosive Quality; if the Tumour be unequally hard, with pricking Pains accompanying, and the Temperament inclined to Melancholy, as in the saturnine Constitutions, or the Blood polluted with cacochymic Juices, there is great Cause to fear its Degeneracy into a Cancer.

I know

I know there are those who derive this *Humour* from some fixed *Salts* in the *Blood*, thrown out as a *Tartar* to the Sides of the *Cask*, or laid aside by *Precipitation*, like the *Lees* at the Bottom: But this being a Simile borrowed by fanciful Persons, from the several States of Wine under *Fermentation*, with which, I think, the *Analogy* will not hold in our Case, I shall pass the same without any *Comment*, and distinguish this Disease not only into a *true* and *perfect*, but into an *original* and *secondary Scirrbus*.

The first of these we define a *bard*, and often fixed *Tumour*, of uncertain *Magnitude* in its Progress, and scarce observed at its first Appearance, at least-wise overlook'd, attended with equal Hardness, little or no Pain, and usually as little change of Colour in the Skin, if it lies especially somewhat deep among the *Muscles*, to whose *Membranes* it is generally fastened; or if more superficial, a duskyish Colour is perhaps discoverable.

In the Cure whereof, we are to call in Aid also *Cure*. from *Physic*, as well as *Surgery*: The former to cleanse away the feculent Humour, to edulcorate the four Juices in the Blood, disposed for Coagulation, and to reiterate or open the obstructed Channels, that the Circulation may be regularly carried on in all Parts of the Body; the latter to mollify or soften the Induration, and after to discuss and dissipate the Humours heaped up in the Part.

For these Ends, *Bleeding*, under the same Proviso, as in the last mentioned, may be allowed, whilst *Purging* must be repeated at proper Intervals, with some of the same *Cathartics*; also the *Decoctum Senæ*, *Polypodii*, *Epithymi*, *Ellebori nigri*, to which last our *Physic Writers* have ascribed a particular Faculty of purging the *melancholy*

Humour, which they say gives rise to this *Tumour*, and accordingly have given them all the Name of *Melanagogues*.

In the Intervals of this Purgings, the Patient may be put into a gentle Breathing for an Hour or two before he rises, with a *Bole* of *Antimon. Diaphoret. Bezoar. Min. Cinnab. Antimon.* or the common *Theriaca*; but the *Cinnabar*, I must confess, I prefer before the other, as not only exciting a free Perspiration, but by correcting the Acidity of the Blood, and dissolving all *Viscosity* therein, it becomes a good *Deobstruent*, here required: For the same End likewise, and with great Benefit, *Calomelanos* is now also prescribed, with a Decoction of the *Woods*, more particularly *Guajac.* as a *Diæt.* observing the same *Regimen* in the *Non-naturals*, as for the *Oedema* was directed.

During the Use of these, the Surgeon must endeavour to relax the indurated Part, by an *emollient Cataplasma*; which *Form*, tho' I thought not so suitable as some others in the former *Tumour*, yet is in this doubtless more agreeable; serving not only by the kindly Warmth, with which it ought to be apply'd, to set open the *Pores*, but by a gentle *Humidity*, relaxing the *Fibres*, and softning the *Induration*.

For this purpose may be directed the *Rad. Alb. Bryon. Lil. Alb. Fol. Verbasci, Malvæ, Parietar. Mercurialis, Brancæ Ursinæ, Lauri, Hyoscyami, Flor. Chamæmel, Melilot. Sambuc. Sem. Lini, Fænugr.*

These, fewer or more, may be boiled in Milk and pulped, adding thereto a small proportion of the *Butyrum recens*, or instead thereof the *Axungias* or *Adipes*; such are the *Adeps Anseris, Gallinæ*, but beyond all others, the *Axungia humana*,

humana, if we may credit some of our Authors.

Where the Tumour is so seated, as that the *Pultis* cannot handsomely be retained, you may substitute the *Empl. de Mucilag. cum Margine adhaesivo*; and when you find the Hardness give way, the *Empl. de Ammoniac. either cum vel sine Cicuta*.

The Saxon Physician, in his Journey to England and Holland, in the Years 1706, 1707, and which was printed 1711, observes, that whilst he was at Amsterdam, Professor B—— was called to a Woman, labouring under a *Scirrbus* of her right Breast, and gave his Opinion that the same was a Cancer, and therefore prepared to cut it off; but Mr. Ruysch being call'd in, to consult with him before the Operation, affirmed it was no Cancer, but only a *Scirrbus*, and applying a Plaister of *Cummin* to it, in four Days dispers'd the Humour, and made a happy Cure of it.

That this Consultation was lucky for the Patient is very plain, but whether publishing to the whole World the Mistake of a great Man, from which none of us are absolutely exempt, was so honourable in one of the same Faculty, I leave you, Gentlemen, to determine.

For this purpose it has been likewise customary to sprinkle the strongest Vinegar upon a hot Iron or Fire-stone, and to let the Steam thereof ascend against the diseased Part. This, by its Subtily and Force of Penetration, oftentimes divides the gross impacted Humour, disposing the same after to Discussion, under one or other of the *gummy Emplasters* aforementioned.

There is another perfect and true *Scirrbus*, so absolutely hard, and so indolent withal, as neither

ther to admit, or stand in need of *Cure*; being fix'd to the Parts adjacent, and giving no Disturbance, making only a *Morbus*, as Mr. *Wise-man*, I think, has it, or rather *Nomen simplex Morbi*, as I chuse rather to call it, in *numero partium*.

Some of these we meet with frequently in the *Face* and other Parts, with *Hairs* growing upon them; the common People call them *Moles*, *Warts* also and *Corns*, by the *Latins* named *Verrucae* and *Clavi*, come, I think, or at least may be brought under the Name of *Scirrbuli*.

Of like Affinity, tho' remoter Kindred, are likewise some of the *Fancy Marks*, or Stamps of the pregnant Woman's *Imagination* upon the *Fœtus* in her Womb; most of which, if let alone, or not tamper'd with, remain quiet; but if disturbed, prove often troublesome, and sometimes like the *malign Scirrbi*, grow outrageous: Of these you will meet with many remarkable Examples, in my Treatise *De Morbis Cutaneis*.

That which I call the *secondary Scirrbus*, is very commonly the Effect of ill *Chirurgery*: For when by the use of some powerful *Discutients*, without *Emollients*, to prepare the gross and phlegmatic Humours for this way of Discharge, it happens that the more subtile and tenuous Particles are only perspired and dissipated; what remains incapable of being thus dispersed, must necessarily fix and indurate upon the Place.

Again, when these Humours happen to extravasate, and are by their Stay, altho' but for a while, incapable of returning into their forsaken Channels, or are improperly treated with *restringent* or *repercutient* Medicines; they very often here take up their Abode, and form a *Scirrbus*. In removing of which, the like Method taking Place,

Place, tho' surely not so strict a *Regimen* as for the Disease *primarily* produced, we shall finish also our Account of this *Tumour* (subjoining a History thereto belonging, as in the foregoing, and also in many, if not all of the following, we shall observe to do) with this ensuing Caution, which will farther confirm the *Prognostic* we have already made thereof, and direct the young Practitioner how to behave himself, when such Cases present. Which is this:

That altho' the *Scirrbus*, in a good Habit, as *Caution.* we have already remark'd, which is perfectly hard, and even indolent, giving no Disturbance, may be accompanied with no Danger, yet if the same feel unequally hard, looks livid, with the Veins black and turgid about the same, especially when attended with pricking darting Pains, the best Way for him will be not to meddle with it: For those *Scirrbi* are very apt to degenerate into *Cancers*: *Latet Anguis hic.* You will soon find that your *Discutients* and *Emollients* too, will but exasperate and enrage the Malady; wherefore I shall fix the same Inscription over this kind of *Scirrbus* for a Caution to young Surgeons, as the Traveller, for the Security of other Passengers, over a Den: *Apaga, mi Amice, requiescat Leo, nam nunc dormit: Cave tu, ne illum expergefacias.*

A Gentlewoman, then young, but since married, and a Mother of several Children, sent for me to advise her what she should do about a Swelling in the Breast, which I perceived to lie separate, tho' contiguous, in three distinct Knots, very hard and indolent, at the lower Part thereof, each about the Bigness of a Walnut; and taking a more particular Observation, I found by some Scars under the inferior *Maxilla*, that cer-
tain

tain Glands there seated, had formerly apostemat-
ed; as also upon one of her Fingers there ap-
peared at that Time a *strumous* Swelling from
whence suspecting some Juice of the like Kind,
here also coagulated, I gave my Opinion that
these Swellings partook of the same Leaven, or
Ferment, that they might come under the mild-
er Denomination of a *Scirrbus*; and that if she
and her Friends thought fit, they might be safe-
ly cut out, tho' as they lay, I could not see that
they were likely, at least at present, to give her
any Disturbance. But their Thoughts turning
all upon a *Cancer*, they were desirous I should
give Mr. *Bernard* a Meeting, and have his Opi-
nion, who accordingly met me the next Day;
and seeming doubtful of the Consequence in
Time, though at present they lay quiet, he pro-
posed, by way of preventing farther Mischiefe,
rather, I think, than Cure, a *Sarsa* Diet-drink,
to purge with *Calomelanos* between whites, and
to take the *Millepedes*, either prepared, or in Ex-
pression, which last is certainly much preferable;
as also by reason of a too sparing and irregular
Flux of her *καταμήνια*, some Pills *ex Ammoniaco*,
Galbano atque Myrrha, to be taken three or four
Days before the usual Time of their Eruption.

Which Method, when she had strictly prose-
cuted for three Months, at some Expence, but
without any Alteration, it was my Advice, that
she might throw off her *Regimen*, and live no
longer *physically*, that is *miserably*, but prudently
take her Food of Meats easily concocted with
agreeable Diversion, and above all, giving her
Breast Liberty, to forbear handling it herself, or
admitting others so to do; to discontinue like-
wise all outward Application to the same; by
which I told her, I was really of Opinion, and
gave

gave her all Encouragement to believe so, that she would hear no more of it for the Time coming, than she had for some Years past: Which accordingly has proved true; for notwithstanding her marrying, bearing Children, at which Times there was great Affluence of Milk, tho' she never suckled, as I had dissuaded; and being since, through Misfortunes, reduced to streight Circumstances, by which there was great Reason to suspect, that thro' *Melancholy*, and Cares of the World coming on, she might have farther soured the Juices of her Blood, and heightned the Disorder; yet, in a Course of fifteen or sixteen Years, through the various Scenes of Life, the *Scirrbus* is still the same, hard like so many Stones, and senseless.

A Gentlewoman between twenty and thirty, HIST. VII.
ἰσχυρὰ, or inclining to a full Habit, by want of Exercise, and too great Indulgence otherways, falling into a *Cachexy*, or contracting an ill Habit of Body, some Months after her Lying-in, and the Return likewise of her Milk, perceiving one of her Breasts growing hard and painful, consulted first of all her Midwife, who ordered her a Plaister; but that nothing availing, an Ointment, also Pultises of several Kinds: But the Disease increasing, or the Breast growing bigger, harder, and more painful, she sent for me.

I perceived the whole Breast, without any Distinction of the *Glandules*, like one entire hard Body, all round, but moveable upon the Ribs, very painful, and a little inflamed.

Being something doubtful of the Issue, I told her plainly, the best I could expect, was likely to be some stubborn *Abscess* or *Apostemation* very deep; but I could not warrant it would not degenerate

degenerate into somewhat worse: Upon which, suspecting I meant a *Cancer*, she and her Relations put the Question home to me; when I told them plainly, that had there not, for some Months past, been Milk therein, I should be jealous it might prove so; but though I had been often troubled to get some such cured, yet I could not say that I ever knew a Tumour from Milk, degenerating into that Disease. However, they themselves inferring from what I said, that I thought the Case disputable, Mr. *Blondell* was called in the same Evening to consult with me; who, after mature Deliberation, declined, as I had done, to deliver absolutely his Thoughts in the Way of a *Prognostic*; leaving the Case a little doubtful, but encouraging the Patient to hope the best.

We both agreed to attempt resolving the *Induration*, and soften the same by a Plaister of the *Mucilages*, encompassing the whole Breast, a plain Indication we ourselves likewise had such Hopes that it was not *cancerous*. We farther directed gr. xv. of *Calomel*. with ʒß. of *Diascord*. every third Night for some time, purging it off next Day, with an Infusion of Rhubarb, Sena, and Salt of Tartar, to ʒiij. of the strained Decoction, adding ʒj. of the soluble Syrup of Roses, or the like Quantity of Manna. On the Days between, she took an Expression of the *Millepedes* in White-wine, ʒij. ad ℥j. *Vini*, and two Spoonfuls of the same for a Dose, twice a Day; drinking thereupon a small Draught of a *Decoct. Sarsaparillæ*, prepared with the *Aq. Calcis*, keeping her to a more regular Discipline in the other *Non-naturals* than she had formerly observed.

For ten Days, or a Fortnight, we could perceive little Alteration, the Hardness continuing much the same: There were, indeed, none of those blackish, *varicous*, or turgid Veins, upon the Surface, nor yet the Inequality, lancinating Pains, or intense Hardness, usually perceptible in the *Cancer*; but yet we were both suspicious it might thus terminate in so ill a Habit of Body as we had to do with, that we took it at one Time under Deliberation, whether we should not leave off our Application to the Breast, and try only to *palliate* by softening her Blood with *Ass's Milk*, *testaceous Powders*, *China Drinks*, *Anodynes*, and *Almond Milks* or *Emulsions*: But thinking it necessary to make some farther Trial with our first prescribed Course, we continued the purging with *Calomel*. in larger Doses, and cover'd the Breast with the *Empl. ex Ammoniaco*; by which, in about a Fortnight more, the same very sensibly relaxed of its Induration, her Pain abating also: And thus once a Week renewing the outward Application, and prosecuting our internal *Regimen*, in about ten Weeks time, the *Tumour* was entirely resolved, and this seemingly threatening Disease conquered. After this she was on the Account of some *uterine Obstructions*, and to remove the *Cachexy*, put into a *chalybeate* Course, with the *Bitters* and *Spaw waters*, by which soon after she regained her Flesh, and a better State of Health than she had enjoyed for many Months past.

Having thus finished our Account of the *four general Tumours*, I should now proceed to some other more particular ones, did not one, the most formidable of all others, I mean the *Cancer* (which also results oftentimes from the last recited) call for our Remarks, and with which I intend to finish this first *Section*.

I might

I might farther have observed to you, that the *Scirrhus* very frequently seizeth likewise upon the internal Parts, particularly the *Liver*, *Mesentery*, the *Spleen* and *Womb*, in the lower Belly; and in the *Thorax*, or Chest, the *Lungs* themselves are found besprinkled, especially in some *strumous* Habits, with hard Tubercles like so many *Scirruli*; but the Surgeon having here no farther Concern therein, than at some Times laying on a resolving Topic, such as *Fomentation*, *Cataplasm*, *Liniment* or *Plaster*; and the Cure, if attainable, being effected by the Prescription of the Physician, who is principally consulted therein, the same has been for that Reason overlook'd. But we hasten to the *Cancer*, which we so lately left as a Lion sleeping, whom finding now provok'd, and rousing up, we shall (however happening to be foil'd) prepare to encounter him the best we can.

Of a CANCER.

Cancer.

This Disease, the most deplorable of all others, and true *Opprobrium Chirurgorum*, we define a *hard* or *knotty*, *unequal* and *very painful Tumour*, of *dusky* or *livid Complexion*, with the *Veins* distended round about its Surface, arising in any Part of the Body of both Sexes, but more commonly in *Women's Breasts*; in which latter particularly, either through the *corrosive Nature* of the Serum, or other *Dyscracy* in some Juice secreted from the Mass, by the *Antients* termed *Atta Bilis*, some *Pressure* or *Bruise* happening to the Part, the same here first obstructed, tho' doubtless predisposed to ferment, raised in the Place a small and scarce perceptible Knot, which encreasing gradually,

ally, takes in at length the whole Breast, and binds as it were the Body thereof close down to the Ribs, as it does itself also in other Parts, to those it possesses or lies upon: By which it is manifestly distinguished from the *encysted Tumours*, as well as from others of the *Glands*. From the common *Sarcoma* it is known by its great and more unequal Hardness, its pricking Pain, and turgid Veins: From the *Scirrhus* by the Pain chiefly; which if happening to accompany, there is great Danger, (as we have already observed,) of the same degenerating into the Disease before us.

When the Distemper has broke thro' its Enclosure, the Skin, it is call'd an *ulcerate Cancer*, as by some before, it was call'd *occult*; although this latter Name is commonly bestow'd upon it, when it has seized the internal Parts, or those not obvious to Sight, as the *Uterus*, a Part very frequently the Seat of it, or the *Intestinum rectum*, where also it sometimes fixeth.

And being once come to break its Covering, the Skin, or other Membranes investing, it sooner dispatcheth the miserable Patient, not only by its furious Acrimony devouring and preying on the Flesh in some Places, whilst it spews out *Fungi*, like the Heads of *Collyflower* in some others, and this with the utmost Outrage to the Spirits; but also from the vast *Gleet* and intervening *Hæmorrhage*, when by its caustic Salt it has eaten thro' the Coats of the Vessels, and having nearly exhausted the purple Stream, in the midst of dismal Groans, excruciating Pains, intolerable Stench and Putrefaction, the miserable Creature finds Release by Death, which had been long Time wish'd for.

The *occult Cancer* is by the *Grecians* named *καρκίνωμα*, which I have farther explained in another Place, when ulcerated *φάγεδαίνα*, from its devouring Faculty ; tho' it is common to call other corrosive or eating Ulcers by the same Name.

The *Germans* on the like Account name it *En Wolph* ; which metaphorical Term is, by the common People among us, taken literally, as I have observ'd in my Remarks upon this Distemper, in my Tract of the *Skin Diseases*.

Cause.

As to the Cause of this indomitable and dreadful Malady, we have already derived the same from a depraved *Serum* in the Blood, which meeting with a suitable local Ferment in the Parts of the Body, particularly the *glandulous*, excites therein a morbid Effervescence, in like manner as from the Mixture of some chemical Liquors, less offensive of themselves, there results an igneous or burning *Stagma*, and putting off their pristine Nature, degenerate into a predatory and corrosive Liquor, destroying the Texture of the *Fibres*, and imbuing the Juices round about, with the same venomous Taint, induces a *Coagulum* therein, and raiseth this hard Tumour ; whilst the said Juices in the mean Time, like an Oil of *Vitriol*, or *Aqua Fortis*, consume and tear in sunder the *nervous Fibrilla*, exciting withal the most acute and painful Sensation.

That there should be this *local Ferment*, we rather believe, for that some light Disaster, such as a *Blow* or *Pressure*, a *ragged* or *faulty Tooth*, has oftentimes given Rise to the Disease, where the circulating Fluid being interrupted, the Seed as it were is sown ; which by the Accession of some adust Particles in the *Serum*, or acrid Salts there-

in,

in, like a *Spark* falling upon *Tinder*, the Conflict is begun, and the rest of the *Tragedy* acted by the Continuance of this Ebullition, or diseasy Ferment.

And thus as the *Bruise*, *Pressure*, or other Accident, may deserve the Name of a *disposing* or *formal Cause*, yet the *material* or efficient, is some particular *Dyscracy* in the *Serum sanguinis*, which tho' probably it might not have fix'd peculiarly upon such a Part, if the Accident had not happen'd; yet whenever meeting with a suitable Matter with which to ferment, it might still have manifested its Disposition, as it often does, without any such previous external Occasion; and where we are not always so happy as to free the Patient, even by *Excision* or *Extirpation*, more of the same *Leaven* remaining yet behind, and very commonly seizing the adjacent Parts.

The manner how the *Blood*, but more particularly the *Serum* thereof, should contract this *corrosive*, *venene* Quality, may be from Errors committed in some of the *Non-naturals*; such as hot and inflammable Meats and Drinks, seasoned, acrid, salt, powder'd, pickled, smoaked, or dried together with other gross and spicy Aliments, a hot Air, and violent Exercise therein, a sedentary, melancholy, and careful Life, deep and intense Thought, with Sorrow for the Loss of Friends, or thro' other Misfortunes, want of Rest, as also of the hæmorrhoidal Discharge in Men accustomed thereunto, or the Menstrual in Women.

These, with other of the like Kind, not only vitiate the Concoctions of the Bowels, but deprave the secreted Juices of the several Organs, imbuing them with a *vitriolate* Acidity, or an *arsenical* and *caustic* Acrimony.

Prognostic.

Having now done with the Description and Cause of this cruel Distemper, the best *Prognostic* that can be made will be but very uncertain.

When the *Cancer* is ulcerated, 'tis still worse than while it remains with the Skin yet whole and sound; worse also in the Mouth or Throat, where the poor Patient is often famished or starv'd to Death, than in some other Parts; worse where great Quantities of the Treasure of Life, the *Blood*, is daily expended, than where no such Effusion has yet happened: Tho' wherever it appears, and however complicate, we find it sufficient, sooner or later, according to Age, Habit, and Way of Management, to destroy the Afflicted, nay even those who are always conversant or lie in Bed with them. Thus, (as Dr. *Harris* has remark'd) a Gentleman of the College of Physicians, Dr. B——r, was killed by the putrid Stench from his Wife's Breast, labouring under this Disease. And remarkable is the Case of Mr. *Smith*, Surgeon to St. *Thomas's* Hospital, who cutting off a cancer'd Breast, and, out of an imprudent Curiosity, touching some of the Liquor discharg'd from a Vesicle therein, with his Tongue, could never get free of the most intolerable Stench, to the Day of his Death, which this Experiment was thought to occasion.

Cure.

We should now hasten to the *Cure*, if we knew of any the Disease would admit. Indeed, in the Beginning, where the Knot is small, and capable of being taken out, if the same arise from an external Cause, and in a tolerable Habit of Body, the *Knife* has sometimes freed the Patient from this threatening Distemper; or if seated where this could not so well take place, as about the Parts of the Mouth, the *actual Caustery*, or

hot Iron, has done the same. The Way by *Escharotic* being highly condemnable, inflaming the Malady, they pretend hereby to conquer and subdue; a Practice fit only for *Empirics*, into whose Hands, and by whose gross Ignorance, these miserable People, not meeting with that Encouragement they expect from the honest and skilful Artist, fall a Prey, and are made a Sacrifice.

Nor is it admirable, that these *Cancer Quacks* should send those deluded People up and down for Satisfaction concerning some Cures they have performed; since all who apply to them are amused with the Notion of a *Cancer*. Thus every *strumous Gland*, *encysted Tumour*, or *simple indolent Scirrhus*, going under this Appellation, and some of them by Chance dissolving under their Method, wasted by their *Caustics*, or lastly, most imprudently cut off, as I could instance in some *milky Breasts* these Villains have so served; when the Cure, which had nothing therein of Difficulty, is thus wrought, here is sufficient Ground to triumph, for these Pretenders, who, if Justice took Place, should have their Reward paid them by the *common Hangman*: Since I dare say, we may defy them to give one Instance of a fixt or true *ulcerated Cancer*, that was ever cured by their Management. No, Gentlemen, you too well know the Nature of this Disease, and that Art (when it is arrived to any Height) can do little more than *palliate*.

Happy truly had it been for thousands in this City, could they have been content with this Way of *palliating*, instead of listening after a promised Cure; when by regular *Diet*, *Bleeding*, *gentle Purgation*, *proper Alteratives*, to correct the *Malignity*, and *edulcorate*, or at least

soften the acrid Juices ; *Narcotics*, to blunt their Pain, when at any time outrageous, *Almond-Milks* and *Emulsions* to contemperate their Heat, and *Anodyne* Applications ; if any *Topic* at all should be thought requisite, they might have lengthened out their Days, some of them too very quietly, and died, perhaps at last, of some other Distemper.

As to Diet, you are to take Care that the same be the most simple, prepared of Meats easily digested, by no means compound, or made out of mix'd Dishes ; above all, let them shun what is acrid, hot, spicy or aromatic ; all salted, powdered, baked, and fry'd Meats ; together with acid, sour or pickled Sauces, or other Condiments. Strong Drinks and Wines are equally prejudicial : Instead of all which, the *Ass's Milk*, *Almond-Milk*, *Barley-Water* with Milk, or an *Emulsion* of the cold Seeds, are to have Precedence, as being excellently well qualified to contemperate the raging Salts, and edulcorate the sharp Juices.

For such however as have been used to Wine or strong Waters, a moderate Sack-whey, or Wine diluted, may supply the Place.

As to Purgation, it is beyond Controversy useful at some times, to empty the Bowels this way, and thereby to lessen the *Cacochymy* of the Blood ; for this end the Medicines directed for the *Scurrhus*, are by some approved. The *Chymists* highly magnify their *Arcanum Coralinum*, for this Use ; but I think the same too dogged and surly a Medicine for these Habits, and too shocking also for the diseased Part. For the like Reason, together with that of their pungent and acrid Heat, I cannot, as they do, recommend their *scammoneat* and *aloetic* Medicines being not only apt to heat and inflame, but also to set open the

the Mouths of the Vessels, especially the latter, and increase the Bleeding, to which these Patients are liable, when the Disease is ulcerated.

Instead of which, I prefer either the *Decoction* or *Infusion* of *Sena*, *Polypody*, *Epithemum*, *Tamarinds*, *Rhubarb*, or the like, *edulcorated* with the *Syr. Rosar. Solut. Violar. de Cichoreo*, *de Pomis purg.* also *Manna*, *Cassia*, *Elect. Lenitiv. Diaprun. simpl.* which may supply the Place of Clysters, at any time when the Body is hot and costive.

Bleeding, upon a new *Effervescence* or *Commotion* of the Blood, will be found sometimes necessary to abate the Heat, and take off the Fluxion.

As for *Alteratives*, a *Decoction* of the Woods, such, I mean, as the *Sarsaparilla*, *China*, *Sassafras*, *Santala*, to which may be added the *Rad. Eringii condit. Ras. C. C. & Eboris*, as it is directed for hectic People, (always omitting the *Guajacum*, notwithstanding a late Author's Use of it, by reason of its Heat and pungent Particles,) may be of some Advantage, if taken constantly in the way of a *Diet*, with a little Milk; also the *Ass's Milk*, with the shelly *Absorbents*, such, I mean, as *Pearl*, *Coral*, *Crab's Eyes and Claws*; the *Millepedes* have here also a deserved Esteem, as has likewise the medicated *Aqua Calcis*; but what peculiar Virtue there is in the *Clavi Equini*, or the *callous Warts* from the Horse-heels, so much cried up by some of the common People for this Purpose, I must confess I know not; but have been informed by a foreign Physician, of good Learning and Practice also, that the *Sapo Venet.* dissolved in any proper *Menstruum*, or made into Pills, and given a Drachm for a Dose twice a Day, is a *Specific* in the Cancer.

We know indeed the same to be an excellent Medicine for bridling the exorbitant *Bile*, of which we have daily Instances in its curing the *Icterus* or *Jaundice*; and it is not improbable, but by its oily, gentle, and smooth Parts, it may be able to blunt, or at least-wise sheath, the pungent, acrid, *cancerous* Salts, or the *Bilis atra* of the Ancients, here offending.

As for *local* Medicaments, or external Applications, where the *Cancer* is not ulcerated, I have observed those People generally fare best, who meddle with none at all; a simple inoffensive Plaister in other Cases, by constipating the *Pores*, here only increasing the Heat, and promoting farther Disturbance: Upon which Account, for many Years past, it has been my Advice to these unhappy People, to forbear experimenting any such, how speciously soever recommended; the like of Unguents, by stopping the said *Pores*, and hindring Perspiration, for the most part doing more Hurt than Good; as does likewise the frequent handling, and all outward Pressure from *Stays*, *Bodice*, or other Whale-bone Stiffning, which at such Times are carefully to be avoided; even the blue *Woad*, or *Wad*, so usually worn upon the Place, being, I think, of little other Use than to make the Disease appear still more frightful, by the Dye or Stain imparted to the Skin thereby.

For such however, as will not be content without an external Remedy, or where the Cancer is ulcerated, the best *Topics* are those borrowed from *Saturn*; such as the *Magistery* and *Salt* thereof. The *Balsamum Saturninum* in *Bates* is likewise commended; but I think the *Menstruum*, which is the *Spir. Terebinth.* abundantly too hot, and thereby a Hazard of inflam-

ing

ing the Distemper; wherefore I should prefer the *Linimentum simplex* of the same Author, prepared of the *Succus Solani*, and *Oleum Rosarum*, to which are added, *Lytbargirum* and *Cerussa*. Of kin to this, is our common Preparation of the Shops, from one of its Ingredients, named *Diapompholigos*. The *Oleum Bufonum* & *Ranarum* of the said *Bates*, are likewise as convenient Liniments to the Part as most others. The *Unguentum de Plumbo* is extolled by some; others cry up the Juice of the deadly *Night-shade*, beat up, or rub'd a long time in a leaden Mortar. *Etmuller*, and after him our famous Mr. *Ray*, informs us, that the Leaves of this Plant, or its Juice made into an Ointment, is the only *Specific* in *Cancers*, whether *occult* or *ulcerated*, being a Secret unknown, till discovered by Mr. *Percival Willoughby*.

The Remedy I have frequently used myself, is this following Lotion, either dapping the Parts therewith, or dipping fine Linen Cloths therein, and suffering them to dry on.

℞ *Aq. Sperm. Ranar.* ℥β. *Sacch. Satur.* ℥ij. *f. Solutio ad usum ut supra, tepidè utenda.*

Arcæus has another, well adapted to the same Purpose, as here follows.

℞ *Ol. Rosar. & Omphac. ana* ℥iv. *Sebi Hircin. Vitulin. Unguent. Rosar. ac Populn. ana* ℥xii. *Suc. Solan. Plantag. & Acetosæ ana* ℥vi. *Vini Granat.* ℥x. *bulliant omnia lento Igne ad Consumpt. Vini ac Succorum; postea colentur, & adde Cerussæ pp.* ℥x. *Lytbarg.* ℥ijβ. *Plumbi usti Antimon. pp. ana* ℥v. *Tutiae* ℥vi. *Campbor. f. a. triturat.* ℥β. *Ceræ alb. q. f. ut f. Ung. molle, viz. liquefacta Cera cum Oleis, inspergantur Pulveres minerales, continuò agitando per boras duas cum Pistillo in Mortario plumbeo, dein ad usum reservando.*

And

And this our Author, not without just Reason too, for ought I know, calls his *Optimum omnium in hoc affectu Medicamentum*.

Dr. *Harris* says he once removed a callous Wart, seeming to threaten a Cancer, by fomenting the same with a *Decoct. ulmi cum foliis santiculæ incoltis*, which a Surgeon had ordered to be washed with a Solution of the *Lapis Medicamentosus*. But if this was a true Cancer, neither the Doctor's nor the Surgeon's Applications, it is my Opinion, had been available; much less common Turpentine, which he proposes to be spread on Lint, and applied to the same; of which he writes, *Nibil plerumque tutius, nihilque sæpe efficacius*: Yet immediately subjoins *sed Lotionem priorem censeo efficacior*.

The same Gentleman proposes, I think, a yet more dangerous Experiment; and that is, bathing the Cancer (not yet ulcerated) with Spirit of Wine: But I have seen so much of the dire Effects hereof, that it behoves me to caution all Persons against the Trial, assuring them it is as irrational to expect to overcome this Malady thereby, as to extinguish the elementary Fire by throwing the same thereinto. As little Benefit, I doubt, will you gain from his Turpentine, since this is a Disease which will by no means bear Emollients, but, as we have observed already, is usually thereby exasperated.

A *French* Author, Monsieur *Gendron*, some Years past, published a small Treatise upon this Distemper; in which, as I remember, (for I have only a cursory View thereof,) discharging the Fluids or Juices in the Blood, as least concerned, he seem'd to place the chief Mischief in the Contorsion or ill Contexture of the *Fibres*, the small Roots of which, like the Threads from those of Plants

Plants divaricating in the Earth, being thus distempered, running deep, and winding under the Flesh, are first of all to be taken out clean, and then the Disease is easily vanquish'd. And the last mentioned, in his late Dissertation on the same, supposes it to arise from Wind, which is able to excite the most severe Pains among the nervous Parts.

But how the vast *Sloughs* and horrid *Fungi*, the putrid *Gleets*, with other Symptoms, the apparent Effects of some Liquor, the most highly venene and corrosive, can be reconciled to either of these Positions, I cannot readily imagine; wherefore, leaving these Gentlemens Advances as mere *Hypotheses*, till the *Phænomena* are better adapted, I shall likewise, first inserting a Case or two, take my Farewell also of this desperate Malady, with these Lines I met with in an ancient *Manuscript* of *Physic*, placed under the *Cancer*.

*Si aliquem odis,
Ac infelicem precas,
Nec Pestem,
Nec Luem,
Nec Pandoræ Pixidem,
Nec Podagram,
Nec Calculum,
His omnibus omissis,
Si magis infelicem,
Habeat Cancrum.*

Which I have thus translated:

Is there a Man you hate,
Or wish the hardest Fate,
Bid neither Plague nor Pox,
Nor fam'd *Pandora's* Box,

Bid

Bid neither Gout, nor Stone,
But (letting these alone)
If wretcheder you'll make him,
Then bid the *Cancer* take him.

HIST. X. An *Apothecary* in *Bishopsgate-Street*, of a corpulent full Habit, and *sanguine*, having for some Months been disordered with an Exulceration on the Leg, of the *dyssepulotic* Kind, at length, upon drying up of the same, complained of an aching and sometimes pricking Pain about the *Sphincter* of the *Anus*; which taking for the *Piles* he overlooked for a while, contenting himself with some of the *Sulphur* Medicines, usually prescrib'd for those Complaints: But at length the Disturbance increasing, with some Difficulty of easing himself when he went to the Stool, he sent for me; and upon Search with my Finger in *Ana*, I plainly felt a hard *Tumour* on the Side of the *Sphincter*, which had given a flattish Figure to the Excrement, upon passing by the same. I was unwilling singly to give my Opinion, and therefore, taking no Notice of its *malign* Disposition at that Time, directed only a *lenient* Injection of warm Milk with the Yolk of an Egg, and an Ounce and half of *Syr. de Meconio*, to be thrown up that Night. The next Day I met Mr. *Bernard*, who, upon Search, after the withdrawing his Finger, declared the *Tumour* to be an *occult Cancer*.

The Patient, for some Weeks, was under my Care, who did all I could, to palliate with Injections of mucilaginous Liquors, *ex Sem. Papav. & Hyoscyami alb. Psillii & Cydon. in Aq. Hordei Extract. Decoct. Hordei cum Melle Rosarum*; also vulnerary Decoctions *ex Fol. Plantag. Saniculæ, Verbaf. Equiset.* sometimes a Solution of *Sacch. Sa-*

turni in *Aq. Sperm. Ranar.* and when costive a little *Oleum Lini cum Syr. Violarum & tantillo Lactis.* He entered upon a *Milk Diet*, drank *Milk*, with a *China Decoction*, *Milk and Barley-Water*, *Ass's Milk*, with *Emulsions of the Seeds and Almonds*, to take off the Fervor or Heat of the Blood, and soften the Juices thereof, with *Anodynes* between whiles, as the Pain required.

But the Disease increasing, and finding no Prospect of a Cure, he was drawn in by a Person of more Assurance, to make Trial of his greater Abilities, very much to my Satisfaction, who had, it seems, disgusted his Friends, by dealing plainly with them.

However under his new Method, I daily perceived him sinking, so long as he was able to get abroad, with his late *Corpulency* hastening to a *Skeleton*: The *Cancer*, as I was informed, soon after appearing on the Out-side of the *Anus*, and spreading toward the Buttock, threw out large *Fungi*, discharging great Quantities of a fetid Gleet, which with the returning *Hæmorrhages*, were quickly after too powerful even for the *actual Cautey*; so that in Spight of all Endeavours, the poor Man quickly after expired in the greatest Misery and inexpressible Anguish.

That which I thought remarkable in this Case, was a large Quantity of a brown or duskyish *Salt*, like Sand, which upon wiping himself after his Stool, he had long Time before observed felt very gritty, and of which having for that Purpose washed the Excrement of one Stool in several Waters, this saltish Sand subsiding to the Bottom of the Bason, he had collected near upon two Drachms; which examining by my Tongue, I found by the hot, pungent, and bitter Taste, there was more of a *salt* than *fabulous* Nature,

ture, and seeming, in their shining Colour, as well as Figure of their *Crystals*, to resemble those Concretions frequently observed in the *biliary Ductus*, or *Porus biliaris* and the *Ductus communis*, entering the *Duodenum*, as well as in the *Vesica* itself. I once remember to have found the same upon dissecting a Lady, who died of an obstinate *bilious Cholic*, when besides one large Stone, that in a manner filled up the Cavity of the *Gall-bladder*, many Grains were discoverable in those small Passages, of the like Salt or Sand-like Substance. That some *bilious Juice* or the *Bile* itself as it were *torrefied* and *adust*, as the Ancients term'd it, had given their Existence, I think beyond Dispute: And how far a true *Cancer* may partake of some degenerated *biliary Salt* of the like Kind, is worth surely an Enquiry; in order to find their *Antidote* or *Specific*, that may be able to prevent their Concretions, and alter their Texture, at leastwise so to blunt their Force, that they may be less able to ferment with the other Juices of the Blood, and kindle this hitherto inextinguishable Fire therein, the predatory Force of which, that you may be farther apprized of, I shall here transfer that remarkable Case communicated to the Royal Society, by Mr. *John Ray*.

HIST. XI. ' My Father (saith he) had a *Cancer*, which
 ' took its Rise from the *Os Jugale*, and in Process
 ' of Time, spread itself over the whole Cheek,
 ' and, notwithstanding the Endeavours of the most
 ' eminent Surgeons, ulcerated his Eye all round,
 ' which I saw him take out with his own Hand,
 ' and afterwards extended to his Ear, and thro'
 ' his Cheek, into his Mouth, and across the upper
 ' Part of his Nose, perforating the Bone there.
 ' It likewise over-ran the side of his Forehead,

fouling the *Os Frontis*, which came away in Pieces, leaving the *Dura Mater* bare, as broad as half a Crown, which running through the Perforation of the *Cranium*, in few Days putrify'd, and exposed the Brain itself, several Portions of which came away fresh, and untainted: And what is most strange, he perfectly retain'd his Senses, and rose every Day to dress the Ulcer himself till a considerable Quantity of his Brain was come away; and when he was confined to his Bed, his Speech first failed, and he died about four Days after, his Brain being totally consum'd, and nothing remaining in the *Cranium*, but a small Quantity of black, putrid Matter. He had neither *Spasm* nor *Convulsion* of any Part all the Time of his Illness.

The following being a History of the same Disease, but attended with better Success, I have thought fit to insert; and truly before this fell out, I was ready to entertain a Persuasion in my self, that an *ulcerated Cancer*, as I had all imaginable Reason to believe this, was not to be cured. The Case was thus.

An elderly Man keeping a Distiller's Shop in *HIST. XII.*
Shoreditch, had complained for some Months past, of a *cancerous Callus* upon his Lip, appearing first like a Wart, soon after growing painful, fretting and spreading farther, which gave him great Uneasiness; upon which he consulted a Physician of his Acquaintance, but finding no Benefit under his Prescriptions, the Ulcer still spreading, after some Weeks Trial of other Experiments ineffectually, he sent for me, to consult with Mr. *Harvey*, about that Time Master of the Surgeon's Company: Upon Examination, we found not only a callous painful Ulcer, with the little Colly-flower Protuberances over-spreading great
Part

Part of the lower Lip; but the Malignity seizing also the whole *Mandible* on that Side, stretching down the Neck, the *Glands* and *muscular* Parts whereof were indurated in like manner, together with the back Part of the *Fauces*; from whence, as well as from the Lip itself, there was perpetually draining off a vast Quantity of a stinking Gleet, being mixed sometimes with Blood issuing from the Lip; the Jaw so tied down that he could not but with Difficulty open his Mouth, nor form the Muscles of the *Oesophagus* for their Office of Deglutition; so that there seemed great Danger of his perishing through Want of Sustenance to be conveyed into the Stomach. The *maxillary Glands*, as well as the *Sublingual* felt like so many little Pebbles; the same unequal and painful Hardness extending itself quite down to the *Clavicle*.

The Result of our Consultation was to pronounce the Disease truly *cancerous*, and that all we could do (it was to be feared) would only *palliate*.

The Day before there had been a famous *Cancer* Doctor, who proposed the wasting of the Excrescence by *Escharotic*: But I soon convinced the Patient he could receive no Benefit thereby; for the Distemper having seized upon the other Parts, rather farther Mischiefs would ensue, stirring up a fresh Fluxion by the Pain from a *caustic* Medicine.

Having made this *Prognostic*, the old Gentleman committing himself to my Care, I immediately put him into a Course of *Ass's Milk*, with the edulcorating or *absorbent Powders*, to temperate the Juices of his Blood: *Fontanels* were directed *inter Scapulas*; twice a Day he took likewise an Expression of the *Millepedes*.

He had a Son bred up to the Practice of Surgery, to whom I gave Directions, that he should frequently wash the ulcerated Lip with a Solution of the *Sacch. Saturni in aq. Sperm. Ranarum*, and after apply a Pledget of *Diapompholygos*, secured with a Muffler. In his Mouth, which was also beginning to ulcerate, he held frequently a thin Mucilage *ex Sem. Psyl. & Cydon. in aq. Hord. extr.* with a third Part of *Mel. Rosar.* The out-side of the Cheek, and down the Neck was lightly embrocated *cum Ol. Rosar. & Unguent. Sambuc.* he drank freely of *Almond Milks* or *Emulsions* between whiles, in a Draught of which at Bed-time was dissolv'd $\text{ʒ}\beta. \text{ʒvj.}$ or ʒj. of *Syr. de Meconio*, as his Pain and Restlessness requir'd.

When this Method had been followed little more than a Fortnight, he grew easier; the Induration sensibly lessened, the knotty Glandules seeming to resolve, and the Gleet, with which he was wont to wet half a Dozen thick Clouts in a Night, was reduced to one half, neither yet were they half so wet.

Upon which Encouragement, we advised him to persevere; and soon after this, he could swallow his Broths more easily, got his Rest also, which he had been a long Time a Stranger to, unless under the Force of an *Opiate*, or quieting Medicine. Quickly after, he broke out all over with a pustulous Itch, which much disquieted him by his continual scratching and scrubbing of his Body; insomuch, that discontinuing his Milk for a little while, I gave him a small Dose of *Calomel*; purging it off again next Morning with *Manna*, and the *Epsom Waters* turn'd with Milk; which I repeated once

in four Days, for three or four Times, giving him also between whiles a Morfel of the following Electuary, after which $\mathfrak{z}\text{iv}$. of the Apofem here directed.

\mathfrak{R} Conf. Fruct. Cynofb. $\mathfrak{z}\text{j}$. *Æthiop. min. sine igne* pp. $\mathfrak{z}\beta$. Chel. canc. simpl. Margarit. pp. ana $\mathfrak{z}\text{j}$. Syr. e Succo Aurant. q. f. m. f. Eleet. cujus capiat ad Magnit. N. M. maj. Mane & Vesp. superbib. $\mathfrak{z}\text{iv}$. Apofem. fequent. cujus capiat eandem Quant. per fe V. Pom.

\mathfrak{R} Rad. Sarsaparil. Chinæ incif. Oxylapath. ana $\mathfrak{z}\text{j}$. Cichor. acetof. ana $\mathfrak{z}\beta$. Herb. Scabiof. Fumar. ana Mij. coq. in aq. f. q. f. pro Colaturæ $\mathfrak{H}\text{ij}$. (sub finem addendo vini albi. $\mathfrak{H}\beta$.) cui addendo, Syr. e Succo Fumariæ $\mathfrak{z}\text{j}\beta$. f. Apofema.

By the Use of this *Regimen*, for about a Fortnight longer, he got clear of his Eruptions and troublesome Itch, recovering his Strength beyond Expectation. We then put him again upon his *Milk-Diet*; which he had not long purfued, before the callous Edges of the Ulcer refolved, as did likewise the Induration of his Chaps and Neck, the Ulcer foon after contracting, foftning throughout and firmly cicatrifing, as yet remains, after feveral Years paff.

Thus was this feemingly desperate Difafe in lefs than three Months Time fubdued; and the old Man, who had taken Leave of all his Friends, being look'd on by ourfelves, as well as them, a loft Man to the World, reftor'd to a better State of Health, than he had enjoyed long time before.

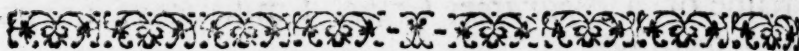
How far this *cutaneous* Eruption might conduce to his Recovery, I cannot fay; but it feem'd

to me probable enough, that there was a *Metastasis* or critical Translation of some sharp and corrosive Particles from the Blood, secreted by the *miliary Glandules* of the *Cutis*, and through their Inability to perspire, stop'd under the *Cuticula*, there raising those troublesome Pustules, which whether or no they might not deserve the Name of a *depuratory Crisis*, I must leave others to determine.





SECT. II.



Of some other particular Tumours.



WE have in our foregoing Section, gone through the *four general Tumours*, *Pblegmon*, *Erysipelas*, *Oedema*, *Scirrbus*, together with the *Cancer*, sometimes resulting from the last, to each of which, as under so many *Classes*, are annexed certain others.

Thus to the *Pblegmon* belong not only the said *Tumour* complicate with the *Erysipelas*, *Oedema*, *Scirrbus*, and thence borrowing the Names *Erysipelatodes*, *Oedematodes*, &c. as formerly observed, but also the *Furunculus*, *Epiniētis*, with some others of the inflammatory Kind.

To the *Erysipelas*, the same in like Manner complicated with the *Herpes* and other *choleric Pustules*.

To the *Oedema*, the *Anasarca* and some watery Tumours, as the *Hydrocephalus*, &c.

To the *Scirrbus*, the *Cancer*, of which we treated last, and to which are added by some the *Scabies* and *Lepra*, which see in our Tract of the Skin Diseases.

The *Emphysema* is, I think, a *Tumor sui generis*.

There are likewise other *Tumours*, which have for their *Basis* some obstructed Glands, and these more

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more or less liable to *Inflammation*: Of the former Kind, I reckon the *Bubo*, both *inguinal* and *axillary*, (if the latter may be called by that Name) the *Phyma*, *Panus*, or *Phygethlon*, *Parotis*; of the latter the *Scrophula* or *Struma*.

To these last, on Account of their cold and sluggish Nature, we shall join the *encysted Tumour*, as the *Atheroma*, *Steatoma*, *Meliceris*, *Ganglion*, *Bronchocele*, also the *Sarcoma*; which are all *Tumours* arising in any Part of our Bodies, from some *extravasate* Humour, or nutritious Juice not duly assimilated, where lodging in the Interstices of the Fibres, and having still more of the same Supply, they break in sunder the fine and tender *Fibrillæ* of the *Membranes*, and thereof form themselves certain *Capsulæ* or little Bags, which I find to have been the Opinion of our Predecessor Dr. *Read*, being supplied still with Nourishment from the capillary Vessels, dispersed and growing along with them; where according to their several Natures and Consistencies, together with their Disposition to coagulate by the Heat of the adjacent Parts, they thicken more or less, putting on the Shape of Flesh, of Fat, or Suet; when less condensed, of Pulse, or Pultis, or that of Honey, from the Likeness of their several Contents deriving their *Greek* Denominations.

Thus the fleshy is called *Sarcoma*, the fatty or suetty *Steatoma*: that like the Pulse, *Atheroma*; the honied, *Meliceris*, of which see our *Ætiological Table*.

There are moreover *Tumours* peculiarly subject to some certain Parts, as the *Phymosis*, and its opposite the *Periphymosis*, to the *Præputium Penis*; the *Perniones*, to the Hands and Feet; the *Paronychia* to the Fingers; the *Hæmorrhoides*,

rhoides, to the *Anus*. Lastly, there are *Tumours* owing to some of the Parts of the Body displaced, and preternaturally distending the Parts they are fallen into; as in the *Herniæ*, both *inguinal*, *scrotal*, and *umbilical*.

According to the general Definition, I at first laid down of this Disease, that by the Name of *Tumour*, we are to understand any preternatural Inequality of one Part of the Surface above another adjoining; we must likewise take in *Warts* and *Corns*, with all the *Pustulæ* and *Tubercula* at some Times rising in the Skin; but having written professedly of the Diseases incident to that Part, I must crave your Excuse, if I here pass by such of them, as are therein discuss'd: Nor shall I in what follows, multiply Divisions, intending to comprehend what remains under this Distinction, of *Tumours acute*, and *Tumours chronic*; or if you had rather I should keep to the ancient Terms, of *Tumours* from *Fluxion*, and *Tumours* by *Congestion*.

Before I enter upon which Task, give me leave to put you in Mind, that although in our Account of the four general *Tumours*, according to the Opinion of the old Writers, the first is derived from *Blood*, the second from *Choler*, the third from *Pblegm*, and the fourth from *Melancholy*; yet must it be understood, as we have remark'd in our Account of them, that it is the *serous* Part, which is the subject of them all; for this only is capable of *Resolution*, *Maturation*, and *Digestion*; Which having hinted, I may farther inform you, that there are three more especial Cases, number'd among the *Tumours*, wherein the *grumous* alone, or together with the *serous*, make up the Contents; I mean, the *Eccymosis*, with the *Varex* of the first Kind; of the last, the
Aneurisma.

Aneurisma. The first I have remarked in my Tract aforesaid, and shall farther observe in speaking of *Contusions*; the second I shall take Notice of, when I touch upon the *Hernia Varicocele*, as also among the *Ulcers*; and the last, in my Discourse of the *Wounds*, of the *Veins* and *Arteries*.

I proceed now with the *acute Tumours*, among which, first of all, of some inflammatory ones of the *Glands*; I shall begin with the *Bubo*.

Of the BUBO.

Before we describe this *Tumour* it may be convenient to say somewhat of the Nature of those *Glands* in general, which are the Seat of these, and some other *Tumours*, hereafter to be described.

The ancient *Anatomists* were at a Loss for the true Office of these Parts, assigning them no other than that of Bolsters or Pillows, for the easier Support and Conveyance of the Blood-vessels; but the Moderns have incontestably proved them to be Receptacles of the *lymphatic Juice*; which they receive into their vesiculous Substance, from a proper *importing*, and after undergoing probably some Alterations therein, discharging the same by their *exporting Ducts*, into the common Receptacle of the *Chyle*, or into the *subclavian Vein*, for the same Use, viz. diluting the said chylous Juice, and rendring it fitter for Circulation through the smaller *Cannals*, before it can be sanguified, or turned into Blood.

Whether the Origin of this *Lymph* be in these *Glands*, or elsewhere, is not so material to

our Purpose: A late noted Anatomist * derives the Source from the Extremities of the Blood-vessels themselves, by Mediation of some exceedingly slender and fine *Tubes*, or Pipes, being so confident of the Discovery, as to have given us a *Plan* of the same (I think to the naked Eye imperceptible) Extremities of these *Tubuli*, at their Rise from the *Pores* of the said Blood-vessels, before they unite in the Branch of their *Ductus*.

But it may suffice to our Purpose, to know whenever this lymphatic Juice, supplied from a diseased Blood, being entred the Substance of the *Glands*, and not readily passing the same, the Part will necessarily be distended and overloaded, from the Afflux of fresh Juice still coming on; when, according to its Proneness for inflaming or coagulating, it either raiseth an *Abscess* in the Body of the Gland, of which we are now discoursing; or, being of a colder Disposition, hardens into the *Scrophula*, to be observed presently.

Our Countryman, Dr. *Wharton*, in his *Adenographia*, assigns a two-fold Cause of the Tumefaction of these Glands. * *The first, from the*
 * *Circulation of the Blood impeded, or being more*
 * *forcibly propel'd by the Artery, than taken up*
 * *by the Vein, there will necessarily arise a Tu-*
 * *mour. Examples of this we have in Contusions*
 * *of these Parts, from whence Obstructions, In-*
 * *flammations, and Apostems very often happen.*
 * *Secondly, from the Nerves spewing out their*
 * *superfluous Serosities in the same Parts; which*
 * *also either offending in Quantity, raiseth a sim-*
 * *ple Tumour; or in Quality, producing either the*

* Mr. Cowper in his large *Anat.*

venereal or the pestilential Bubo. Hence also will arise a Compression of the Blood-vessels, by which the Tumour is still farther augmented to that vast Magnitude at some times, that Mr. Cowper observ'd the inguinal Gland of Sir William Cranmer to weigh six Pounds, the Trunk of the crural Artery running through the lower Part thereof^b: But hastning to our Subject.

The Bubo, we define a Tumour sometimes with, Bubo.
at other Times without Inflammation; seated upon, and circumscribed by the Glandules of the Groin, to which the same Parts in the Axilla, or Arm-pit, are likewise subject, and usually, tho' not so properly, called by the same Name. These, with the parotid Glands, seated behind the Ears, supplying the Place of *Emunctories*, or Common-sewers to the other Parts of the Body, through which the morbid *Illuvies* of the Blood is often drained: And nothing is more common than to see the *serous* Humours in that of Infants, derived by these latter Glandules, so sharp sometimes, as to excoriate the Parts adjoining, nay to rot the very Headclothes of sucking Children, like an Oil of Vitriol, or an Aqua Fortis; withall so very strong and fetid, as to strike the Nostril with a very disagreeable Sensation; whence I think these Glands have as just a Title to that of *Odoriferæ*, as those on the Neck of the *Glans Penis*, so named by that curious Anatomist Dr. Ed. Tyson deceased. Nor is it unusual for Nurses to observe those Children the most healthful, who have this Benefit; and to be in the greatest Danger, when by improper Treatment of repelling Topics, the Discharge happens to be

^b See Appendix to his large *Anat.* Fig. 1.

check'd. Moreover, we find the Fevers of these little Ones often terminating by some *critical Abscess* of these *Glands*; as do some malignant or contagious ones in the adult, as well as on those of the *Groins* or *Arm-pits*: Upon which Account we distinguish the *Bubo* as *critical* and *symptomatical*.

The former we have now described; the latter we also define a *painful Tumour of the Glands of the Groin or Arm-pit, not primarily or originally affected, but arising secondarily from some painful Ulcer, or other Distemperature of some adjoining Part, whether purely by a nervous Consent, or from a vitiated Lymph supplied therefrom by the Blood, I don't determine*; but so it is in Fact, that by Reason of some painful Disorder of the *Foot, Leg, or Thigh*, the *Glands* in the *Groin* shall often tumefy, and grow also painful; upon the *Arm* those in the *Axilla*: Which, after the going off of this Disturbance in those Places *primarily diseased*, very commonly subside without farther Trouble.

Prognostic. In delivering our *Prognostic* of this Tumour, we must acquaint you, that the *Bubo* is more or less dangerous and difficult of Cure, according to its Nature, *benign* or *malign*, *symptomatic* or *critical*: The first admitting oftentimes of being resolved, the latter ought always to be brought to *Suppuration*. After the Discharge whereof, unless Care be taken to correct the *Malignity*, by proper *specific* internal *Antidotes*, there are some of them very apt to degenerate into corrosive, *phagædenic Ulcers*. But these are chiefly of the *venereal* Kind, which I have treated of in my *Siphylis*, a Discourse upon that Distemper, already publish'd and reprinted with large Additions.

In the Cure therefore of the *Bubo*, whether *Cure.*
inguinal or *axillary* (for I shall beg Leave to retain that Name for both) if the same be *critical*, the younger Artist, from what we have now said, will see that he must by no Means apply any repelling Topick, or other, by which the Humours may be thrown back into the Blood; but rather use his utmost Endeavours that the same be brought to ripen, or turn to *Matter*: For which End, he may apply a *Cataplasm* of the *Rad. Lil. alb. Fici pingues*, for the easier attracting the Venom outwards, mixing therewith the *Fimus Columbinus vel Anserinus*, also the *Cepæ sub cineribus coctæ, allium coctum ac contusum*; to which, in Case of a pestilential Infection, are also added the *Theriaca* and *Mithridatium*: But these, by Reason of the *Opium* in their Composition, however small in Proportion, are, I think, somewhat to be suspected at these Times, unless the same could be left out of the Compositions kept prepared for these Purposes, with that omitted.

Bleeding, Purgation, or whatever may call off, or derive the poisonous Humour other ways, must be forborn; allowing such Diet as may be necessary to keep up the Spirits, with those proper *alexeterial* Medicines, as may still farther promote their Expansion, and fortify Nature for an Expulsion of the same; moving always from the Center to the Circumference at these Times.

To this End conduce the two foresaid Compositions, *Theriaca* & *Mithridatium*, also the *Conf. Fracast. de Hyacinth. Elect. ex Ovo, Lapis Contrayerv. de Goa, &c.*

Among the Simples for this Purpose, are reckon'd the *Fol. Rutæ, Scord. Rad. Allii, Petasitidis, Scorzon. Serpentar. Valerin. Contrayerv.* with

with many others, to be met with in the Writings of *Physicians*.

When the Humour advanceth slowly, or that there seems Danger of the same retroceding, some Authors propose (what I have practis'd with Advantage in sluggish pocky *Bubo's*) the setting on a dry Cupping-glass, with much Flame on the Part, by which the included Air shut up being rarify'd to a very great Degree, there is Room made for a stronger Pressure of the external *Atmosphere* all round, whence the Parts adjoining are impell'd into the Glass, and the *Tumour* increased, as is observable in the common *Cupping*.

This being repeated two or three times, disposeth the Gland to inflame, after which the *Cataplasma* fore said may be laid on, or a Plaister of the *Gums* or *Mucilages*; to which some (on Account of their hot and inflammable Disposition) add the *Pulv. Euphorbiæ*, *Rad. Pirethri*, *Sem. Sinapios*. But these are seldom required, unless in Times of *pestilential Infection*.

When the Matter is once made, and begins to fluctuate, let the *Caustic* be laid on, as we directed for the suppurated *Phlegmon*; afterwards proceeding to digest, deterge, incarn, and cicatrise, as shall be shewn in our Discourse of *Ulcers*.

In the *secondary*, or, as I may call it, *sympathetical Bubo*, the chief Regard is to be had to the primary Disease, endeavouring to take off the Pain and Inflammation attending the same, and of which this Disturbance in the neighbouring *Glandules*, is the only Result or Consequence: However, in the mean Time, you may apply an *anodyne Cataplasma* of Bread and Milk; or you may *ambrocate* with some Lenient, as the *Ol. Lumbæ*, *Rosæ*, *Sambuc*. Also at these Times,

a Derivation of the Humour by *Bleeding* and gentle *Purgation*: And if there should remain any *Induration* afterwards, you may try to resolve the same by some suitable discutient Emplaster, such as that made out of two Parts of the *Empl. de Minio*, and one of *Diach. cum Gum.* melted down together. If notwithstanding it should happen to inflame and *suppurate*, you may heal it as was said of the *Pblegmon*, proceeding as above.

And this is all we shall offer concerning the *Bubo*, unless a farther Admonition: That in Times of *Contagion*, or wherever a *pestilential* Venom is spread abroad, and become *epidemic*, if the same happens, by the Strength of *Nature*, to be thrown out upon these *Glands*, the Ulcer must not too hastily be healed up; lest the *malign* Particles to be thrown forth by these Emissaries or Outlets, being shut in, should after destroy the Patient; for whose Security, if some Part of the Ulcer, where the same can, be commodiously done, were continued as an Issue, for a little Time, or till the Sick were absolutely out of Danger, it might sufficiently compensate the Trouble: If this cannot be done, *Fontanels* set open near the Part, may supply the Place.

An *Artificer* near *Woodstreet*, under an infirm Hist.xiii. State of Health, after several Months languishing with a *hectic* Fever, accompanied with *spitting of Blood*, and *Night Sweats*, at last complained of a Pain, with Swelling on one of his Groins. He had committed himself to the Care of an *Apothecary* in his Neighbourhood, who under Pretence of recruiting his Strength, even before this new Appearance, notwithstanding contrary Indications on all Sides, as may be inferr'd from the Description above, advised him to drink strong Liquors, and to eat any thing that he had

had a Fancy for; but after the Swelling shew'd itself, some of his Acquaintance advis'd him to send for me, who viewing the same, and perceiving it advancing forwards, thought it by all Means necessary, from whatever Cause arising, to promote its *Maturation*; and in order thereunto, advis'd the *Cataplasm* of Figs and Lily-Roots, whilst for his *Cough*, *Soreness of his Breast*, *Spitting of Blood*, *Night-Sweats* and other Symptoms of his *Hætic*, I prescribed what follows.

℞ *Conf. Rosar.* ℥j. *Bals. Lucatel.* ℥ss. *Coral. rub. pp.* ℥ij. *Ter. Japon.* ℥j. *Syr. de Sympbito q. s. m. f. Elect.* *cujus capiat Quant. N. M. sexta quaque hora superbibendo cochl. vj. Emulsionis sequentis.*

℞ *Amygd. d. decort. No. vj. Sem. Papav. alb. ℥ij. contusis affunde Aq. Hord. (in qua Gum. Arabic. ℥ss. soluta fuerit) ℥j. Colaturæ addendo Aq. Cinnam. bord. ℥j. Sacchar. q. s. m.*

℞ *Ol. Amygd. d. ℥jss. Syr. Papav. Rhæad. & de Mæconio ana ℥ss. Spec. Diatrag. fr. ℥ij. Sacchar. Cant. alb. parum. m. instar Lokoc. de quo capiat Cochlear. amplum e fundo vasculi; Tussi infestante.*

℞ *Aq. Lact. Ceras. nigr. ana ℥iv. Cinnamom. Hord. ℥ij. Pæon. C. ℥j. Margarit. Coral. rub. pp. ana. ℥j. Sacchar. alb. chrystal. parum. m. f. Julapium. Sumat Cochl. quatuor ejusdem in languoribus præcipue matutino mane sudoribus oppressus.*

After I had written these *Formulæ*, as I was coming down Stairs with the *Apothecary*, before I parted from him, I took him aside, and enquired our Patient's Course of Life, being his Acquaintance,

acquaintance, and entirely unknown to me; when in free Discourse between ourselves, I let fall a suspicious Word or two, that I apprehended his Case to be *venereal*: Upon which, contrary not only to the Rules in Consultation, but to the usual Freedom taken one with another related to the same Profession, the silly Man, in my Absence, told our Patient what I thought of his Disease; who in great Concern sent to me the next Day, to let me know, that as I was an utter Stranger to him, he could the rather forgive my hard Thoughts of him, at the same Time avouching his Innocence, as did his Wife in Tears, protesting not only her own, but the Assurance she had also of her Husband's. Whereupon finding how I had been served, I frankly owned, that where such Swellings offered, at a Time when no *malignant* or *pestilential* Distemper reigned among us, we were always jealous of a *venereal* Taint giving Rise to the same; but let that be how it would, if he thought fit to continue my Visits, as Occasion required, I would do him what Service I could. And understanding the treacherous *Apothecary* had been so very officious, as to offer at the laying open of the *Bubo*, I did farther assure the Patient, that it was not his Business, nor could I think a Man of so tattling a Disposition was fit to have any thing to do in the Affair: But in that I left him to act as he pleased, and advising the Continuance of the *Pultis*, left him farther to consider of it.

The next Day I visited him again, and found the Person, who intended me doubtless an ill Office, was himself discharged; and the same Prescriptions I was desired to renew, or what else I thought necessary, which were sent away to another.

another. Taking a farther View of the Swelling, and perceiving the same almost fit for the *Causis*, I told him he must have a Surgeon, and he concluded upon Mr. *Fern*, who the next Day laid on a good large one, on the rising Part of the Tumour, which was now increased to the Bulk of a large Turkey Egg, lying like a small Roll of Bread along the *Inguen*, and full of Matter fluctuating underneath. Which being discharg'd, and the *Eschar* upon separating, we met again, to consider which Way to forward the Work of healing, by mending the deprav'd *Crisis* of his Blood, and subduing the hectical Indisposition still threatning; and accordingly I wrote the following Prescript.

℞ *Cons. Rosar.* ℥j. *pulv. Haly rec.* zij. *Cbel. Canc. simpl. Coral. rub. pp. ana.* zj. *Syr. de Symphyto q. s. m. f. Eleēt. de quo capiat Morsulum ad Magnitud. N. Mosc. maj. Mane ac Vesperī superbibendo Haustulum Decocti seq. cujus etiam bibat alii temporibus cum tertia parte Lact. Vaccin. admistum.*

℞ *Rad. Sarsaparil. Chinæ incis. ana* ℥ss. *Rasur. Eboris, & C. C. ana* zij. *Eryngii condit. zj. Coquant in Aq. Hord. q. s. pro Colaturæ ℥ij. sub finem addenda Capill. Ven. Mss. & f. Apozema.*

℞ *Syr. de Symphyto, de Meconio Bals. Tolat. aq. Cinnamomi. Hord. ana* ℥j. *f. Mixtura ex qua deglutiatur Cochleare aliquo tempore Tussi magis molestante.*

When he had been kept to this *Regimen* for some Weeks, his Fever, and *Hæmoptoe*, or spitting of Blood, much lessened, as also his Sweats, and he grew daily stronger; insomuch, that his Surgeon

Surgeon, for his farther Security, pressed upon me, that I would order a little *Camomel*: Since, notwithstanding their insisting so much upon their Continency, we were both still inclinable to believe this *Tumour* had its Rise from some Misfortune of the *Venereal* Kind: And I readily complied with his taking twelve, and sometimes fifteen Grains, once in three or four Days, for as many Times, early in the Morning, that it might not disturb him in the Night, with an Infusion of the *Rad. Rhei cum Syr. Ros. solut.* to purge it off, three or four Hours after.

The Ulcer being *digested*, was *deterged* by a *Dofil* armed with *Liniment*, and dip'd in the *Precipit.* or this last, as the *Sloughs* and *spongy* Flesh required, strew'd on, till the same growing firmer, fill'd up with Flesh, and after some Time, by the same Applications, was also *cicatrised*.

But tho' the Surgeon's Work went on as well as could be expected in such a crazy Subject; yet our Patient continued still pining, with some Remains of his *Cough*, Oppression on his Chest, and between whiles a little Blood hawk'd up, from his *Lungs*. So that we now put him upon the *Ass's Milk*, and as soon as his Sore would admit, he lay out of Town, by which he found Benefit as to his Breath, and his Appetite likewise. But in a little Time, after the healing his Ulcer, he made fresh Complaint of a Pain about his Fundament, where he had formerly been troubled with the *Piles*; and from whence a large Quantity of Gleet, *instar Loturæ Carnium*, came down at this Time, fouling his Linen in a frightful manner. Sending for me again, I made Inspection thereof, and on one Side of the *Anus*, discover'd an ulcerated *Hæmorrhoid*, which

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doubtless furnish'd the Excretion aforesaid. I then ordered him to let Mr. *Fern* examine it, and to take his Opinion, mine being for its Continuance in the Room of a *Fontanel*, if it could be kept easy, and did not overflow, not only founded on some of *Hippocrates's Aphorisms*, relating to this Affair; particularly, where that great Man tells us, *Diuturnas curanti Hæmorrhoides, nisi una aperta servetur, Periculum Aquæ inter Cutem, vel Tabis impendet*; but deduced also from right Reason; for as we had just shut up one *Sink*, by which Nature had thrown forth great Quantity of the morbid *Matter*, tho' not yet sufficient for depurating the Mass thereby, she had now, as before, *critically* opened another *Sluice* to drain off the Residue, and by the hasty Stoppage whereof, it was Odds if he did not risque his Life, either by the return of his Sweats, or a Looseness, concluding with a *Marasmus*; of which, by two or three Lines, I gave Mr. *Fern* Notice, and left only the following Prescription to temper the Acrimony of the Humours flowing down, and to procure him an easy Stool, when *costive*, as he had been of late.

R. Cassiæ recenter Extr. Elect. Lenitiv. ana ʒij. Chelar. Canc. ʒj. Lact. Sulph. ʒij. Syr. Viol. q. s. m. f. Elect. cujus capiat ad Magnitudinem Juglandis singulis vel alternis Noctibus, prout Alvus magis vel minus fuerit astricta.

When I left this *Formula*, I enjoined him strictly the Prosecution of his *Ass's-Milk*, and the *Milk-Diet*, with his *Sarsa* Decoction, taking with each Draught of the former a Morfel of the Electuary, with the *Testacea, ex Conser. R. Coral. rub. &c.* as already laid down, when drank with that Decoction: And took my Leave, not seeing

seeing him till about six Weeks after, when I met him accidentally in the Street, where I understood the Discharge, but more moderate, continued *per Anum*, that he had got rid of his Cough, and, notwithstanding this last Complaint, had been in Condition to ride some hundreds of Miles, since I had made him my last Visit: Yet I then thought his Aspect such, tho' I said nothing to discourage him, that if he steer'd not his leaky Bottom very uprightly, he was still in Danger of being overset.

Of some other inflammatory Tumours of the GLANDS.

The rest of the *acute* or *inflammatory Tumours* of these Parts, have so near Affinity with the former, and so little vary in the Cure, unless that these latter very frequently submit to the milder *Suppuratives*, and some of them are safely discuss'd, proving often less stubborn than the foregoing: that I shall not enlarge by giving a particular *Process* for each, or tarry longer than to describe them.

Some Authors, and those of good Account, *Parotis.* having distinguished them scarce otherwise than *Phyma.* according to the place of their Situation; and *Phyge-* thus when happening upon the *conglomerate*, or *thlon.* external *salivatory Glandules*, it is term'd *Parotis,* *Panus.* partaking sometimes of the like Malignity with the *pestilential Bubo*, and requiring the same Treatment, when on the *conglobate* and *submental Phyma*, which rising like a small *Pblegmon*, increaseth gradually, and suppurates, being attended with Pain, Tension, and Pulsation, tho' not in so great a Degree as that.

There is likewise an inflammatory Tumour about the *Verge* of the *Anus*, going by this Name, being the Result of a *Hæmorrhoid* or *Pile* impostumated, and from which the *Fistulæ* of this Part are often derived, as Mr. *Wiseman* has observed.

When the farther *Phyma* or *submental Tumour* partakes more of the *Erysipelas* than of the *Pblegmon*, or carries along with it any *Contagion*; it is by some Writers denominated in *Greek*, φούγελλον, by the *Latins*, *Panus*, being frequently met with under the Chins of Infants and young Children, where, appearing hard and round, like a little Loaf of Bread, (whence, probably, it has borrowed this latter Name *Panus*, *quasi Panis*) it grows quickly after red and inflam'd, turning to *Matter*, especially if assisted by some gentle *emollient* and *maturative Cataplasm*: And after the Discharge, if mild, heals oftentimes with as little Trouble as the *Furunculus*, or common Boil. For it is to be remark'd, that these Tumours under the Chin, however happening to be thrown out of, or separated from the Mass of Blood in the Way of a febrile *Crisis*, are notwithstanding numbred usually among the *benign*; whereas the *parotid*, *axillary*, and *inguinal*, are generally of the *contagious* and *malignant* Tribe; and that as the former require the milder *Suppuratives*, these latter sometimes want the strongest, together with the Exhibition, as we have already taken notice, of some proper *Alexipharmic*, that may assist *Nature* to expel the latent *Venom*, and throw it outwards.

Carbunculus.

Having spoken of some *malign* and *pestilential Tumours*, I might have added a few Words of the *Carbunculus*, which, though not a *glandulous Tumour*,

SECT. II. Of other inflammatory Tumours.

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Tumour, partakes of the highest *Malignity* of all the rest.

It is called in *Greek*, *ἄνθραξ*, i. e. *Pruna*, a Live-Coal, from its burning Quality, eating into the subjacent Skin and Flesh, and never coming to *Suppuration*, the Medicines of which kind, only increasing the Putrefaction, are to be forborn, whilst the rotten Flesh is cut into, and the Incision fill'd up with some spirituous diffusive Application; or a hot Iron, which exceeds all others, may be elapt down upon the Part, to prevent its spreading farther: And after digesting of the *Eschar*, with the like Applications as directed for *Gangrena*, such as the *Unguent. Ægyptiac.* also the *Unguent. fuscum* of old *Fælix Wurtz*, to which a little of the *Ol. Terebinth.* or *Tinct. Myrr. & Aloes*, may be added, as in other *sordid* and *putrid* Ulcers; not neglecting, in the mean time, some *antipestilential Remedy* to be taken inwardly, that the vital Indication may be provided for, or the Spirits fortified against the *Contagion*. But I have touched upon this in my Treatise before referr'd to, and therefore will leave it with this Description, as a *Diagnostic*, whereby the young Practitioner may the better know how to distinguish it, when it offers to his View; as it is delivered by *Barbet*, an eminent Writer in Surgery, and Practitioner at *Amsterdam*.

There appears, saith he, in the *Flesh* one large *Pustule*, and sometimes many smaller conjoined or cluster'd, which being opened, a dusky or black Crust, as it were, comes into Sight, attended with *Inflammation*, *Pain*, *Fever*, and great *Inquietude*. This Crust removed, instead of Matter, a spongy, cadaverous, or rotten *Flesh*, presents itself.

Of the Scrophula, or Struma. Sect. II.

But of the Nature and Manner of Production of these *pestilential* Diseases, we have spoke in the same Tract; and shall therefore here finish our Account of the *acute* inflammatory Tumours, subjoining first this short *Prognostic* to the foregoing.

The *Parotis* will admit much the same as the *Bubo*, being frequently *malign*; the *Carbunculus*, the worst of all, partaking of the highest *Contagion*, and therefore generally proves a mortal Symptom. The other glandulous Affects, being more benign, have much less danger, tho' none of them ought to be repell'd, but either resolved, as they are sometimes, or brought to *Suppuration*, as most commonly.

We shall now come to observe the *cold* and *chronical* Tumours; among which, first of all,

Of the SCROPHULA, or STRUMA, commonly called the KING'S EVIL.

Scrophula
or Stru-
ma.

These are in the *Greek* named *κασπάδες*, a *Porcis*, from the Hogs, with which Distemper, it is said, commonly this Creature is affected, whose Flesh, it must be own'd, is sometimes observed much fuller of these interspersed *Glands*, than that of other Creatures; but what Affinity they have with our *Strumæ*, being unaccompanied, so far as I know, with any other of the Symptoms, I cannot say, nor do I think material.

The *Struma* we define a *hard glandulous Tumour*, usually of the same Colour with the Skin, seated principally on the Sides of the Neck, about the *Musculi Mastoidei*, behind the Ears, and under the Chin, either more or less moveable, single, of the *conglobate*, or in Clusters of the *conglomerate* Kind:

Kind: It being often observed in some of these Patients, to have them thus contiguous from the Ear down to the Clavicle. A memorable Instance of HIS. XIV. which Stadlerus gives among his chirurgic Observations; where he speaks of a Youth they had in the Hospital, with a Tumour extending from the right side of his Face, down the Neck: Which being opened, they cut out seventy-two glandulous Bodies, many of them as large as Hens Eggs, each in a proper Tunick, which proved troublesome to extirpate, by reason of the Vessels which were tied up (a tedious Operation of an Hour's Continuance;) after which laying down the Teguments, the Wound was healed up again by Agglutination.

The Operator, I find, was deceived in this Tumour, taking the same for an *Atheroma*, till after opening the outside Skin, when the *Scrophulæ* thrust out in large Bunches.

I said principally, altho' there is scarce any Part of the Body, wherein these adventitious Glands are not sometimes to be found; witness *Brassavola*, who tells us he had a Woman under his Cure, that in all Parts of her Body, from the Neck down to her Groin, was full of *strumous Glands*. Nor are the *Viscera* secure from the same Malady, especially the *Mesentery* in the *Abdomen*, and the Organs of Respiration in the *Thorax*, which are found upon the Dissection of *strumous* Persons. So that when the Disease is arrived at any height, we may reasonably surmise the first of these to be affected, by Means whereof the *Chyle* being intercepted in its Passage to the common *Receptacle*, and the *Lacteals* compress'd, a Rupture sometimes happens of those tender Vessels, and a *chylous Dropsy* ensues, which I have discover'd divers Times; or a *Co.liquative*

Diarrhœa thence arising, brings on a *Marasmus*, and destroys the Patient: The last may be inferred from the *δυσπνεία*, or streight Breathing, with a dry Cough often attending.

The Glands
the chief
Seat of
this Dis-
ease.

That the *Glands*, either *natural* or *adventitious*, are the common Seat of this Malady, is beyond Controversy: But the manner of their Production, out of what Juices, and by what Vessels conveyed, not so easy to determine.

Dr. Whar-
ton's Opi-
nion of this
Disease.

Dr. *Wharton*, that strenuous Patron of the *Succus nutritius* of the Nerves, will have these to be the Instruments of Conveyance; for having discharged both *Artery* and *Vein*, as well as the *lymphatic* Vessel entering the *Gland*, and believing the *Gland* itself, into which this latter deposes the *Lymph*, in order to its Conveyance to the *Receptaculum*, must needs be destined for some other Use, *viz.* that of secreting the nutritious Juice: Otherwise, saith he, the said *Lympha* might have taken a nearer Journey to the *Store-house*, without calling in at these *Diver-ticula*.

This learned Man, I say, having thus clear'd the Way for his own *Hypothesis*, proceeds thus, as I shall insert in his own Words*.

‘ Nervus itaque restat perpendendus, supra
‘ monstravimus Familiaritatem magnam & Com-
‘ mercium inter Nervos & Glandulas intercedere.
‘ Nervosque aliquid vel adferre ad illos, vel ab
‘ iisdem auferre. Impossibile autem est, ut Nervi
‘ ab his Glandulis aliquid auferant, priusquam ipsæ
‘ existant; sed necesse est, aliquid adferant, ut Ma-
‘ teria suppeditetur, ex qua fiunt. Succus quem
‘ Nervi exspuunt, multo delicatior molliorque est
‘ Sanguine, multoque similior Materiæ spermati-

* *Adenographia* apud nos, p. 245.

ca. Si ergo contingat, Nervi turgentis & repleti Extremitatem, effundere Materiam ejusmodi in Carnium Interstitia, Materia, sic effusa, statim Formationem molitur, & primò Cystim, sive Amiculum, quo tanquam Corio involvatur, effingit. Quia vero nova subinde Materia e Nervo huc confluit, fit, ut Cystis hæc sensim distendatur, cumque ex ipso Augmento necessario Extremitates Arteriarum & Venarum proximas, aliquatenus comprimat, accidit ut libero Sanguinis Transitu, nonnihil impedito, aliqua ejusdem Portio in Tunicam formatæ Cistulæ derivetur, novosque in eadem Rivulos exsculpat, qui postea in Arterias facessunt: Quia vero Pars in quam hi Rivuli immittantur, Virtute formativa prædita est, ne Sanguine jam effuso opprimatur, Rivulos alios venales efformat, per quos in Extremitates Venarum circumjacentium superflua ejusdem Portio exoneretur: Atque adeo habemus primum Glandulæ de novo productæ Rudimentum, ejusque Generationis Modum, partem mittentem, Nervum nimirum, partem vivificantem, Arteriam: Partem exonerantem, venam; item Materiam missam, Albumini Ovorum similem; partem recipientem, Carnium Interstitia; & specialius Tunicam immediatè eandem Materiam, ceu Ovum de novo formatum, investientem.

From this *Hypothesis* of the nervous Channels, taking up and unloading themselves in the Interstices of the carnous Fibres where they terminate, he deduces the Facility of the Translation of these *adventitious* Glandules from one Part to another, or of their sudden disappearing in one Place, and rising soon after in another. *For if, with he, the Nerve be overcharged, it can easily throw out some Portion of that Humour, with which*
it

it abounds, into the Parts wherein it terminates: As again, when it falls out, the same Nerve to be emptied or unloaded, it can as readily take up the same Juice it had before discharged, and convey it either to its proper Emunctory, or to some other neighbouring Part.

Hence also the Reason, why, when the tough and viscid Humour of these Glands is broken and dissolved by the *mercurial Globules* in the taking of *Calomelanos*, or in rubbing the crude Quick-silver into the Pores, they are easily suck'd up by these nervous Tubes, and conveyed to their proper glandulous Emissaries in the Mouth, where they are drain'd off in a continual Rivulet of *Lymph*, till the morbid Particles being this Way secerned, there remains no more to be thrown out, when the Glandules contract their Pores, and having done their Office, shut up, as it were, of their own Accord.

But waving any farther Account of this Matter, and referring such as are more particularly desirous to inform themselves of this Gentleman's Sentiments, relating to the same, to the afore said Treatise; I shall speak a few Words concerning the *Prognostic*, and proceed to the Cure.

Prognostic. As to the first, this Distemper admits of an uncertain Event, according to its different Nature and Degrees. Thus if the same be *hereditary*, or arrived to any Height, the *Mesentery* is, as before observed, commonly obstructed, and the Patient dies *tabid*: Or if the Joints are affected, as they frequently are, with *white Swellings*, so called, the Bones are generally fouled, before the Matter appears outwardly, and the Ligaments rotten. No better is to be expected, where it has taken hold of the small Bones of the Carpal

and *Metacarpus*, the *Tarsus*, or its *Metatarsus*, known by a Thickness of the Joint, Finger or Toe affected, even before it inflames or suppurates, when it proves a Work of long Time, these small Bones, as well as the Heads of the Joints, being difficultly exfoliated) and very uncertain in the Issue or Conclusion.

On the other side, if there appear only some glandulous Swellings under the *Chin*, or about the Neck, provided they are securely situate, if they resolve not under a physical *Regimen* and suitable Application, they may be taken out by Incision, or wasted by *Escharotic*, and the Patient thereby freed of the Distemper; though perhaps some unseemly *Stigma* may remain after in the room of a *Cicatrix*.

The Indications for the Cure of this Disease, *Cure in* we shall find perhaps the same, whether its Origin lies in the said *Juice* of the *Nerves* distemper'd, or as we rather conjecture in some particular Acidity, or somewhat of Kin thereto, in the *Serum* of the Blood, or in some Fault in the *Lymph*, as others; since before we can gain any Ground upon the same, the *Dyscracy* of the *Sucus* in the one must be amended, whilst the Acidity in the others is corrected; especial Care being taken for a future Supply of such a sweet, temperate and wholesome chylous Juice, out of which all are derived, as may cut off any future *Fomes* for the Disease: Indeed, without altering the Juices of the Blood in general, we are like to gain very little Ground, there being scarce any Part of the whole *Fabric*, which, in its Perambulation, it doth not at some Times call on.

Thus in the Eyes, it shews itself in a trouble-*The Symp-*
some *Ophthalmia*, producing in the Corners there-*toms enu-*
of *merated.*

of both the *Anchylops* and *Ægylops*; in the Lids, the *Epiphora*, and *Lipittudo*; in the Nose, the *Ozena*; in the Lips, the *Labrisulcium*, or thick pouting Tumour, especially of the upper, with a Chap or Cleft in the midst thereof: On the Inside of the Throat, the tumefied and *sarcomatous Tonsillæ*; under the Tongue, the *Ramula*; on the Wind-pipe, *Bronchocele*; these two being by some reckoned (but I think not rightly) among the *strumous* Affects; under the Chin, and on the Sides of the Neck, the *Strumæ* properly, and which is, as I may say, the great *Pathognomonic* of the Distemper in general; upon the Membranes of the Muscles, the *Gummi*; upon the Tendons, the *Ganglion*; though the first of these is rather an Attendant upon the *Lues venerea*, the last also commonly owing to some Wrench upon the Part: But on the Joints we have the fixt immovable *white Swellings*, the indisputable Offspring of the Distemper; and besides the external Parts of the Body disfigur'd by those *adventitious* Glands, some of the internal also, as we have already taken Notice, interspersed therewith. What shall we say, when we find the very Marrow of the Bones infected, nay, the Solidity of these Parts themselves not Fence sufficient against the Acrimony of these Humours? Witness still the worst of all, the *carious Ulcers* and terrible *Exostoses*; witness the formidable *Spina Ventosa*, where the *corroding Solvent*, beginning inward, preys upon the Bone like an *Aqua Stygia, five fortis duplex*, penetrating the inward *Lamellæ*, eating through the outward *Cortex*, and this even in the largest Bones of the Body: So that in this Particular, for its corrosive Nature, it may be said to come up with, and even far to surpass the *Pox* itself, although

though the acrimonious Salts, by which they act, are of a diverse Nature, as appears in the Method of their Cure.

Since then this *gigantic Disease* requires some *Herculean Force* to subdue it, a *mercurial Salivation*, as for the other, has been propos'd, and practis'd oftentimes for that Intent; I wish I could say, for my own Part, with the Success I had expected: Having for some Years past, found more Benefit from a *mercurial Medicine* given between whites, and purged off again, together with proper *Alteratives*, than by the same continued, in order to raise a *Ptyalism*: Nor can I believe this Remedy to be, what is commonly call'd *Specific* in the *strumous*, as it is found in the *venereal Affects*, where we meet with so general an Advantage from its Exhibition.

When the Disease indeed is recent, and the Stuffing of the Glands rather humoural than fleshy, a *Colliquation* or melting the viscid Humours by such Means, may dispose them for Evacuation by some proper *Cathartic*: A strict physical Course being after continued, to alter the Blood; and promote the true glandular Secretions; but otherwise in the common Course of Spitting, the *strumous Salts* not being so suitably adapted to, or lick'd up by the *mercurial Particles*, as the *venereal* are found to be, and more of the *nutritious* ones being together drain'd away, the Blood is thereby impoverish'd and either a *nervous Atrophy* ensues, or a *pulmonary Phthisis* comes on, and destroys the Patient.

Nor should it seem strange to find the Lungs affected in this Disease, the Structure thereof being *glandulous*, much favouring the *strumous* Production: It being very common to have *Tubercles* of several Sorts engendred therein, in some of which

which I have found, upon cutting into their *Cystæ*, the like Contents, as in the *Atheroma*, *Steatoma*, and *Meliceris*, is observed; whilst in others, a *cretaceous* Substance, like that in the *Internodes* of some *arthritic* Persons has been discover'd; but to come more strictly to the Cure in general.

Venæsection, unless to take off some feverish *Effervescence* arising in the Blood at some times, is in these Cases not so absolutely requir'd as *Purgation*, which is to be repeated at proper Intervals, according as the Patient's Age, Strength, and Habit may allow, with some of the same *Phlegmagogues*, directed for *Oedema*, unto which *Calomel* is to be adjoin'd, on Account of its attenuating Property, and its Fitness to reperate and scour the obstructed *Glandules*.

In the mean time, unless the Habit be very thin, and the Patient disposed to a *Hætic*, let his Diet be rather drying than moistning, prepared of such Aliment as affords a sweet and pure Chyle, avoiding all gross, obstructing, or phlegmatic, such as Fish, especially those in standing Waters, Cheese, all smok'd, season'd, or dry'd Meats. Pork likewise by some, how justly I cannot say, is forbidden strumous People: Neither will Milk, which is necessary to be heeded, be found always agreeable in these Cases, from which I have known, not only the outward *Strumæ* much increased, but the *Mesentery* also stuffed with the like Glands, and the *Consumption* thereby hastned, for which the same had been inconsiderately prescribed.

By *Alteratives*, I mean, whatever has a Power of correcting this particular *Dyscracy* of the Juices, and opening the obstructed Tubes, without any sensible Operation.

Antistru-
matics.

Among these a Decoction of the *Woods* claims a Preheminence; to which are added one or other

of the *Specificks*, so called, such as the *Rad. Scrophulariæ*, *Filipendulæ*, *Succisæ*, *Saponariæ*, *Bardanæ*, *Cort. Juglandis Arboris*, *Herba Jacobæa*, *Geranium Robertianum*, *Chelidon. maj.* *Cynoglossium*, *Marrubium album*, *Digitalis*, with some others of less Note, to be observed presently.

In these Decoctions, it is very common to put also a Lump of crude *Antimony*, of four Ounces, or ℥ss . Weight, grossly powder'd and tied up in a Rag; in giving particular Recipe's, for which I think it needless to spend your Time. A *Specimen* you have thereof in Dr. Fuller's *Decoctum liberans*, and his *Decoctum edulcorans*, of a Diet, in his *Cerevisia ad Scrophulas*, and his *Decoctum ad easdem*.

For such as are not able to be at the Expence of these, or unwilling to be at the Trouble of preparing them, which must be continued for a long Time, I have frequently ordered a Solution of the *Calx viva* ℥j . to a Gallon of Spring-Water, which being decanted, two or three Ounces of the *Rasura Ligni Sassafras*, with ℥ss . or ℥j . of the *Rad. Liquiritiæ* sliced, may be steeped therein; these not only taking off the brackish Taste, and changing it for one more pleasant, but giving likewise a very agreeable Smell and Colour to the same.

As to the cold Infusion of several others of these Drugs, prescribed by some *Physicians*, I must confess, I think the Cost ill bestowed, the Water being before saturated with the Salts of the Lime, and the Woods too compact to yield any Vertue this Way, which require a Decoction of many Hours, with as many taken up in a preceding hot Infusion preparatory thereto: For which Cause, when I would have the Water more thoroughly medicated therewith, I either order

order them to be boiled in *Aq. Calcis*, somewhat weaker, prepared for the Purpose; or having made the Decoction in Spring-Water, to each Quart thereof, half a Pint of the common *Aq. Calcis* may be added: And thus the Salts of the Lime being communicated to the Blood, are admirably well fitted, as Dr. Morton has taken Notice in his Discourse *de Phthisi*, by their *alkaline* Property, to obtund the acrid Particles therein, and precipitate the same, having done as great Service in these Cases, if not more, than many other more pompous Forms of Remedies.

Besides these Liquors, which are to be taken as a Diet, there are moreover other Medicines to be prescribed, for the same Intention of altering and sweetning the sharp Juices: Such I mean, as the *Antimon. Diaphoret. Bezoard. Mineral. Æthiops Mineral.* the Gum of *Guajacum*.

As for the *testaceous* Powders, tho' I believe them very proper to sheath the Points of the offending Acid, at leastwise blunt their Force, and to edulcorate the four Humours lodg'd in the *Primæ Viæ*, the *Ventricle* and *Intestines*: Yet by Reason of their Grit, or exceeding Hardness, unless very finely levigated, I should suspect their Passage thro' the *Lacteals*, or passing, their being coacervated in the *mesenteric Glandules*, as I remember once to have found them in a *strumous tabid* Patient upon Dissection, who had taken great Quantities thereof.

I have therefore a better Opinion of the *Aselli* or *Millepedes*, being suited by that Plenty of volatile Salt they contain, and the Tenuity of their Parts, to incide the viscid Humour, and to open these glandulous Obstructions, passing them off

off by Urine. Hence with good Success they are usefully prescribed, not only in these Infarctions, but for *attenuating, absterging, or cleansing* all *mucilaginous and tartarous Concretions* upon the *Viscera*, which they precipitate the same Way.

The Method of prescribing them, is, after they are washed and dried, to bake them in an Oven, and reduce them into Powder, which is given from \mathfrak{zj} . to $\mathfrak{z\beta}$. in any convenient Vehicle, such as White-wine; but their Infusion alive therein, and taking the Expression, is much preferable: Thus \mathfrak{zij} . or $\mathfrak{zij\beta}$. of the live *Millepedes*, may be steeped in a Pint of good White-wine, and two or three Spoonfuls of the Expression, given for a Dose, twice a Day; or the swallowing a Score of them at a Time, which is easy to many Persons, whereby their volatile Parts are preserved; impaired otherwise, if not destroy'd, by the Heat of the Oven.

I shall trouble you with but one more Remedy, and that is the *Lapis Spongiæ*, or *Sponge Stone*, with the *Sponge* itself calcined: Which I have experienced in these Cases (and have known it succeed with some other Practitioners) among which give me leave to relate the following, in as few Words as I can.

A Countryman, about thirty Years of Age, HIST. xv. presented himself to me for Advice, with both Sides of his Neck (where the *Strumæ* were placed *racematim*, as I may say) like a Bunch of Grapes, but more fitly compared to that of *Tur-neps*, with which extending forwards, the *Larynx* was so compressed, as to endanger Suffocation. He had the like *Glands* upon the *pectoral Muscles*, about the *Axillæ*, with other *ganglionide* Tumours on his Arms and Wrists: A Case

so pertinacious, and by many Years riveted; that fearing I should do little good with him, I prescribed a *Diet* of the *Woods*, with some *Antistrumatics*; Purgation with *Extr. Rud. & Merc. dulcis*, between whiles; also an *alterative* Electuary of *Gum. Guajac. Æthiops Min. Pulv. Millep.* made up with the *Conf. Fruct. Cynosbat.* together with a Roll of the *Empl. de Ranis cum dupl. q.* to be applied externally upon the *Glands* Plaister-wise, and renewed as there was occasion; returning him back into the Country, where before his coming up, I might have told you, he had been salivated, and had spit plentifully for thirty Days; notwithstanding which, the Distemper gained upon him, and grew worse than before.

But growing weary of Method, he quickly after threw all aside; till meeting in Company with one who had laboured under the like Malady, and had got his Cure by a Remedy under which he lived at large, without *Regimen*, he procured from his Correspondent here in Town some of the same for our Patient, being a large Gally-pot full of a dark or blackish Powder, out of which he took a Spoonful Night and Morning in a Draught of Beer; and finding his *Kernels* waste, he was encouraged to go on, especially perceiving how easily it was purchased; his Friend making no Secret of the Matter, but frankly telling him what it was: Upon which that he might not be farther troublesome, he desired a Relation he had here, according to the Direction given him, to buy a large Quantity of the most gritty or *fabulous Sponges* he could pick out, which drying in an Oven, he reduced to Powder; and having continued taking the same for about three Months, the *Glands* were all

disperfed

dispersed, and his Distemper vanquished ; so that being in Town about some Business at the Year's End, I saw him with a smooth Neck, scarce a *Vestige* of the same remaining, having, as he expressed himself, piss'd away the *King's Evil*.

Somewhat related to this, is the *Pulvis ad Strumas* of Dr. Bates, prepared of the *Lapis Spongiæ* three Parts, *Sal Gem.* two Parts, *Tartar. Vitriolat.* one Part ; with which I have done Service also in some of these Cases: But whoever thinks hereby that he has got a Medicine infallible, will, I can assure him, find himself mistaken. *Grulingi*us prescribes it thus:

℞ *Spongiæ, Lapidis Spongiæ, Pumicis, ana p. æ. calcinentur, & capiat ʒj. pro Dosi, bis in Die cum Potu Diætetico.*

In another part of his Writings I find it thus.

℞ *Sal Pumicis ʒß. Sal Gem. ʒij. Sal Tart. ʒj. m. f. Pulvis. Detur in Vino, vel Aq. Scrophulariæ, incipiendo a Luna decrescente ad Novilunium.*

For the same purpose in another, I find this:

℞ *Pulv. Radic. Gladioli ʒss. sumat in Cochleari Syrupi Violarum, omni Mane per Mensē.*

I come now to the *topical* Application, or the *Topical Chirurgery* more especially required in these tumefied Glands ; which we are first to attempt with Discutients, and Emollients of the stronger sort, as were directed for the *Scirrhus*. The *Empl. de Ranis cum Mercurio* is frequently applied for this End, as also that of the Gums, *Ammoniacum, Galbanum, Bdellium*, to which the crude Mercury may be added, as it is in the new Dispensatory. Some neat Forms of which are to

be met with in Dr. Fuller's *Empl. Antimoniale*, and his *Linimentum de Bryonia* prescribed for the same Purpose; as also in Bates's *Empl. ad Strumas*, and *Diagalbanum*, with his *Unguent. Digitalis*.

But truly the Success attending these Applications, in the more stubborn and confirm'd *Strumæ*, is not always answerable; for we often find, notwithstanding all we can do, our Expectations frustrate.

The following is taken from *Zacutus de Prax. admirabili*, Vol. 2. Lib. 1. *apud nos*, p. 24. Obs. 101. which by Reason of his so strenuously vouching for its Infallibility, I have here annexed, & *penes Authorem sit Fides*.

℞ *Rad. Bryon. magnæ, bene nutritæ & rotundæ, ponderis ℥ss. seca in Taleolas minutissimas, & frige cum Olei Oliv. rec. ℥iij. quousque siccentur, & contabescant, cola, & addendo Terebint. Abietis ℥ss. Cere Citrin. ʒv. ab Igne remota f. Unguentum viscidissimum, quod nunquam (inquit Autor) testor Deum, in Scrofulis, me fefellit.*

The Herb *Aperine*, *anglicè* Goosgrass or Clivers, beat up with Lard, and the *Strumæ* therewith anointed, discusses the same, whilst the distilled Water of the whole Plant lends farther Help thereto. Also the *Rad. Apij* is by our famous Mr. Ray recommended for the like Use. *Crollius* as highly extols the *Chelydon. min.* or *Pilewort*, whose Roots, he says, are a kind of *Specific* therein. An Ointment prepared of these Roots is directed thus :

℞ *Rad. Chelyd. min. mundat. ac contus. Axung. Porcin. a. q. v. terantur simul & coq^r ad Radicum siccit. bisque repetatur hoc Opus ut Radicibus bene impregnatur*

impregnatur Axungia, quo peracto (inquit Autor) nobis habebis Unguentum, cum quo tepefacto mane & sero illinentur partes affectæ.

Etmuller, as also *Mr. Ray* abovementioned, speak much in the praise of the *Pulvis Cyani per aliquod tempus assumptus*, or the Tincture extracted from the Flowers thereof, being of like Efficacy.

A Physician of Eminency, sometime deceased, had taken up a very great Opinion of the *Rad. Cynoglos.* as well inwardly used, I mean its Decoction, as outwardly in *Cataplasms*, applied to the Gland; which, he tells us, he had frequently found successful.

But beyond all these, among the Botanic Writers, the *Fol. Digitalis trita ac Strumis imposita*, *ejusve Succus Unguento*, bear away the Bell.

Dr. Bates's Preparation of this Unguent stands thus.

R. Butyri Mayalis ℥iij. Fol. Digital. rec. contus. quot immisceri possint, insolentur Dies xxx. dein coque donec Flores sint crispæ, & fiat fortis expressio, pro locis strumosis inungendis (inquit ille) nil æquale.

This seems to be the same in use with *Mr. Wiseman*, which he calls the *Valentia Digitalis*, having undergone a repeated Infusion of fresh Leaves, by which the same is farther impregnated with the Vertues of the Plant; and by the use hereof externally, whilst his *Decoct. ad Strumas* is exhibited internally, the Glands will insensibly be resolved, as the Author has delivered to us.

Helmont speaks much in praise of the spongy or hairy Excrecence, growing out of the Canker

Rose, whose Powder being taken to ʒß. mixt with Sugar; is a very noble Remedy; but when he says it must be taken *Luna decreſcente*, I muſt own with me it abates much of its pretended Excellencies.

The *Rad. Ruſci* in fine Powder given to a Dram every Morning in White-wine, eſpecially if an equal Proportion of thoſe *de Filipendula* vel *Scrophularia* are added, and adminiſtred in like Doſe, are praiſed by *Etmullerus*; as is the *Paronychia cum Folio rutaceo*, by our *Boyle* in theſe Words. *Herba hæc in Cereviſia infuſa vel cocta, & pro Potu ordinario uſurpata, ſine ulla Evacuatione ſenſibili Scrophulis medetur.*

Arnoldus Villanovanus, ſpeaking of the *Rad. Scrophulariæ*, which we have before numbered among the *Specifics*, gives this Account thereof. *Radices ejus recentes per decem Auroras jejunè comestæ, Morbum Regium certe curant.*

Another Way of giving them is in this wiſe.

℞ *Radic. verno tempore & accreſcente Luna ejus ſoffarum ſiccat. & Pulv. exhibeantur ter in Die, ex Decocto earundem. Celeberrimum (inquit) hoc eſt ac Remedium laudatum.*

An Ointment prepared of theſe Roots is thus directed,

℞ *Rad. Scrophulariæ rec. bene mundat. Hiſcæ contundantur cum Butyr. rec. q. ſ. deinde in Vaſe clauſo locatæ digerantur in ſimo equino vel in B. M. per quatuordecim dies, poſtea ſuper Ignem lentum liqueſcant cum levi Ebullitione & ſ. colatura; unde habebis Unguentum in Scrophulis & Strumis valde proſicuum,*

For the same Purpose the *Decoctum Succisæ*, likewise, has been recommended.

But when our Author, as some others of the *Astrological* Tribe, have limited the Time of digging them out of the Ground, at the Increase of the Moon, and much more where he orders an odd Number of them to be strung as a Neck-lace, and hung round the Child's Neck, who is thus diseased, he trifles; and if it were not for the Powder and Decoction of the Root he prescribes to be given the Child at the same time, 'tis my Opinion, no one had been the better for the *Appensa*, any more than the Children of this present Age among us, have been forwarded in their Teeth cutting, by that Bauble or Trinket called the *Anodyne Necklace*. But to proceed.

When the Glands discuss not, but inflame, the best we can expect, for the most part, is a superficial *Suppuration*, leaving their Basis to be after eradicated by *Escharotics*, a painful and tedious Work, and whilst we are doing which, other *Strumæ* frequently arise upon the adjoining Parts. Wherefore, if the same be well-conditioned, seated free from the large *Blood-vessels* and *Tendons*, and slips about under the common Teguments, the best and easiest Way also, is to take it out whole by Incision, either *longitudinal*, if it be small, or *crucial*, when of the larger Size. After which, the Lips of the Wound being laid down again, are to be digested and agglutinated, as in other Wounds thus made shall be hereafter directed.

But when by Reason of their lying under, or upon some *Vessel*, as in those about the *Jugulars* often falls out; or among the *Tendons*, as on the *Metacarp* and *Metatarsæ*, we must, if they happen to burst themselves, be content to level them

the best we can by *Escharotics*, still repeated as the *Sloughs* throw off; till we have consumed as much of the *Gland*, and gone as deep as may be safely adventured; when probably some powerful Desiccative may induce a *Cicatrix*, which may so tie down the Remains, as to create no farther Trouble; and if the same be not so smooth and even, as in other Wounds and Ulcers, the Patient must take it as it falls out, the utmost of our Art being unable to prevent some rugged, and less seemly Scars, after this Distemper.

The Method of thus wasting them, and with what *Escharotics*, I shall lay down when I come to speak of *Ulcers* with *Hyperfarcosis*, concluding in the mean Time this Head of the Disease relating to the *strumous Gland*, with this farther Admonition to the young Artist, that if at any Time the same begins to inflame (a Sign that it will suppurate, tho' it may be long first) the Discutients being laid aside, let the stronger emollient Suppuratives be applied, as the *Rad. Lil. alb.*, *Bryon.* *Althææ* *Cyclam.* *Cucum.* *Sylv.* to which you may add the *Fici ping.* *Stercus Columb.* and if the Progress be very slow, for stirring up the sluggish Humour, and rousing its Heat, the *Rad. Pyreth.* *Sem. Staphidis* & *Sinapios*.

Caution.

Again, be sure take Care to defer letting out the Matter as long as possible, still remembering, *quod Pus generat Purem*, or that *Matter* begets, at least increaseth more: So that the more of the *Gland* you can get to suppurate, the less you will have to do with your *Escharotic* or *Catheretic* Medicines, to waste the Remainder, when probably your *Præcipit. rub.* alone, or mixed with the Digestive, may accomplish the Work, and by the Assistance of your Desiccative, finish the Cure.

It

It would take up too much of your Time, and swell this Section beyond proper Bounds, should we run through a Description and Method of Cure at large, for all the several *Species* of this Disease: However, that we may render our *Idea* of the same as serviceable as we can, we shall briefly handle the most remarkable in the same Order we have already recited them, beginning with the *Ophthalmia*, or Inflammation of the Eye.

An *Ophthalmia* is supposed to be strumous, when Strumous it has been of long standing, arising without manifest Ophthalmic Cause, and yielding not to the common Remedies of my, its Bleeding, Blistering, Purging, with the anodyne Signs and Cure. Collyria, vulgarly prescribed.

It is known to be so, when complicated with a thick chapt Lip, a crusty scabbed Nostril, especially if there be any strumous Glands about the Sides of the Neck, or under the Chin.

In the Cure of this Inflammation, the same *Antistrumatics* are to be directed, as we mentioned before for that Disease in general; unless that in place of the hotter *Cathartics*, the more lenient and gentle Purgation is by some preferred, giving *Calomel* over Night, and purging it off therewith next Day, or the Day after; repeating the same once, if not twice a Week: And remembering that on the purging Days, especially if the stronger have been administered, some gentle *Anodyne* is given at Night; such as that of $\mathfrak{z}\mathfrak{ss}$. or $\mathfrak{z}\mathfrak{vi}$. of *Syrupus de Meconio* in $\mathfrak{z}\mathfrak{j}$. or $\mathfrak{z}\mathfrak{ij}$. of the *Aq. Flor. Paralyf.* or the *Aq. Papav. alb.* On the intermediate Days, the Expression of the *Millepedes* may be given as above directed.

As for *Topics*, having made all the suitable *Revulsion* and *Derivation* of the Humour, by cupping on the Neck and Shoulders, bleeding with the
Lance

Lancet in the Arm and Jugulars, with Leeches to the Temples and behind the Ears, Issues also inter, or rather supra Scapulas, or the Seton subter Nucha, the Applications are to be proportioned to the several States of the Inflammation: Thus, in the beginning, all Epithems or Collyria are to be moderately repercutient, such are prepared ex Aquis Rosar. Plantag. Sperm. Ranarum, cum Aqua ex Alb. Ov. conquassata, extracta.

To these are added the most subtile levigated Powders, *de Lapide Tutia & Calaminari*, the Sig. Alb. Rbas.

In the *Increase, Digestive, and Resolving*, mixed with the former; among these are reckoned the *Aquæ Euphrasiæ, Chelidonii, Fœniculi, cum Mucilagibus Sem. Lini, Fœnugrec. Althææ*: To which in the State, are added the Gum, *Sarcocolla cum Lacte Nutrit.* as more powerfully digesting than some of the other. Again, in the Declension, *Resolvents with Restringents.*

When great Pain attends the Fluxion, some mild and anodyne Collyria are more convenient; such are the *Mucilagine Sem. Malvæ, Psyllij ac Cydon in Aq. Papav. extractæ*: Also the *Lac Muliebre ex Mammis in Oculos recenter mulctum, Sanguis Columbinus instillatus. Item Mucilag. Sem. Papav. & Hyoscyam. alb. in Aq. Rosar. extractæ*, to any of which may be added, in case of extreme Pain, a few Grains of Opium.

When there is great Heat, Itching and Redness, a little *Saccharum Saturni* ʒss. to ʒij. or iij. of the Collyria, with gr. j. ij. or iij. of the *Vitriolum album*.

Whilst these are in use, *Intercipients* may be laid to the Temples, *ex Gummi Mastiche vel Torcamabacca, una cum Granis aliquot Opii & Camphoræ simul liquefactis, & supra Alutam tenuem circularis Figuræ extensis.*

Epithemi

Epithems also to the Forehead, in the Nature of the *Oxyrhodine* of the Antients, or *frontal De-fensatives*, ex *Bolo vero*, *Sanguine Draconis*, *Thureum Albuminibus Ovorum*, *Aceto Rosarum*, & *Farina volatili*, or the *Albumina Ovorum cum frustula Aluminis rup. agitata*.

Which last Sort are to be frequently renewed, as they grow stiff and dry.

Instead of these, more especially over the Eye-lids, may be applied *Cataplasms*, ex *Pulpa Pomorum acidorum sub Cineribus coctorum*, cum aliquibus ex *Mucilaginibus supradictis mixta*, or a Decoction ex *Fol. Ros. rub. Flor. Sambuc. cum Mica panis albi, vitello Ovi & pauculo Croci additis*.

A *Fotus* of the same Decoction may be yet farther serviceable to resolve the *Tumour*, and give a Breathing to the Humour impacted, if judiciously prescribed: And where the *Cilia*, or *Eye-lashes* are apt to be glued together, as very commonly happens after Sleep, the same are to be lightly smear'd with a Feather dipt in the *Unguent. Tutia*, or my *Cerate de Lapide Calaminari*, dissolved in a Spoon for that purpose, upon going to rest.

Whilst these are applied *locally*, there are more *Oxydorcica* over some other Internals to be prescribed, which, *cica*. from their supposed Faculty of strengthening the Sight, are named *Oxydorcica*; some Forms of which you may meet with in the *Cerevisia Oxydorcica*, *Pulvis Cibarius*, *Pulvis Ophthalmicus*, and the *Elect. Oxydorcicum* of Dr. Bates.

What *specific* Virtue there may be in the *Euphrasia*, the Basis of these Compositions, I am uncertain; but should always advise the *Millepedes* afore-mentioned to be mixed with these Compositions, or added to the other Ingredients:
And

And truly, if the *Ophthalmia* be strumous, the other *Alteratives* before recited seem preferable, to correct this particular *Discrepancy* of the Juices, altho' I shall not oppose the rest being directed between whites.

If there should happen any Danger to the Sight, by Speck or *Suffusion* on the *Pupil*, some gentle Deterfivè may be drop'd in, as a *Collyrium* prepar'd *ex Sacch. Cant. albo, cum Granis aliquot Sal. Ammoniaci vel Vitrioli albi*, dissolv'd in *Aq. Fœniculi, Verbenæ, Euphrasiæ, Chelidonii*: The Juices also of those Plants are often mixed with Honey, and made into a *Liniment*, or with the fine Powders of *Myrrh* and *Aloes*, also the Water distilled from Honey is recommended for these Uses.

I have seen very good Effect from the subtile Powder of *Crocus Metallorum*, infused for some Days in either of these Waters, ʒß. or ʒj. to ʒij. of the same being poured off clear at the time of Use. But there are many Compositions for this End interspersed in Physic Books; some proper *Formulæ* you will meet with in the *Collyrium Armoniacum*, *Collyrium de Succis*, and the *Collyrium Vitriolicum* of Dr. Fuller's *Pharmacop. extemp.* and a very celebrated one in the *Aqua Ophthalmica Sapphirina* (so called from its Colour) in Dr. Bates.

Some other Forms of *Collyria*, I will, notwithstanding, here set down, as I have used them my self, and which have been approved in divers Consultations.

℞ *Aq. Ros. rub. Euphrasiæ ana ʒij. Aloes purif. subtilif. præp. ʒß. Sacch. Saturn. ʒj. m.*

℞ *Aloes opt. pulv. Sacch. cand. præp. ana ʒij. Campb. ʒj. Aq. Euphras. ʒiiij. m. pro Collyrio ad Oculos obfuscatos seu tenebricosos.*

℞ *Lap. Calamin. exquisite lævigat. ʒiij. Aq. Sper. Ranar. ʒiv. m. in Ophthalmia.*

℞ *Unguent. de Tutia ʒij. illinentur cilia b. s. humore tenaci Mane conglutinata.*

℞ *Album Ovi unius, concute cum ʒj. Aluminis; & Linteus eodem madefactus applicetur supra Palpebras, renovando exsiccatus in Defluxione calida atque acri.*

℞ *Aloes, Tutia & Sacch. cand. subtilissimè lævigat. a. p. æq. m. f. pulvis Oculis insufflandus in florum Chemosi.*

℞ *Croc. Metal. pp. ʒj. aq. Chelidon. ʒvj. post lebitam Infusionem instillentur gut. iij. vel. quatuor epide, sine Morſu validè abstergit in Obscuritate Visus.*

℞ *Vini albi ʒiv. Vitriol. alb. ʒß. solve & filtra, dein adde Mel. opt. ʒß. in Oculis defluentibus.*

℞ *Aq. Ros. ʒij. Trocl. alb. Rbas. ʒij. Tutia præp. ʒß. Sacch. Saturn. gr. v. m. in Humore acri ac ardent.*

℞ *Aloes opt. pulv. ʒj. Sacch. cand. præp. ʒiv. Camp. ʒj. m. detergere ac refrigerare.*

℞ *Aloes ʒß. Sacch. Satur. ʒß. Aq. Ros. ʒij. ad eundem usum.*

And thus much of the *strumous Ophthalmia*; wherein, however short, I think there is enough said to convince the thinking Part of Mankind,
how

how little regard is to be had to the most famed Eye-Waters, or Salves, for all Diseases indiscriminate of this Part, which require so much Variation, and so exact a Judgment in proportioning their Strength, and directing their Virtues, so as to answer the several Indications of *repelling*, *resolving* and *digesting* the Humours offending in the several Stages of the *Inflammation*; much above the Reach, I am sure, of all our *Quacking Oculists*, who at Adventure try Experiments upon deluded People that consult them.

A Persuasion to Surgeons to enterprize the couching of Cataracts. Being got upon this Theme, I cannot choose but admire that none of you, Gentlemen, who are so well acquainted with the Structure of this noble Organ, should take upon you, among other *Chirurgic Operations*, that most noble one of *couching the Cataract*.

'Tis you, indeed, that are alone qualified: But the fear of miscarrying at the first setting out, and Loss of Credit thereby attending, as also that it might lessen perhaps a general Practice, should you become conspicuous for this, has, I doubt, withheld you and made room for those bold Intruders, who assuming the particular Name of *Oculists*, are daily committing the most irreparable Mischief, as I could evince, if there was Occasion, and Time permitted, from many, very many, Observations of my own, upon their Ignorance as well as Knavery. One of the most noted of these Men, in some Discourse I had with him, acknowledging ingenuously his Ignorance in any *Theory of Vision*, the *Mechanism* of the *Organ*, as to its Coats and Humours, and the Nature or Propriety of Medicaments, rightly suited for removing the several Diseases thereunto incident; affirming farther, that if he succeeded once in the Operation of penetrating the *Cornea*

and depressing of the *Cataract*, in ten Times, it was as much as he desired; that one extolling him more than the other nine could sink his Reputation: Whereas, continued he, if such as you were to undertake this Work, and could not recover nine in ten, you would be accounted Bunglers.

Thus do these People plead a sort of Privilege to play the Knave; and having so done, an Exemption not only from Punishment, but even from Disgrace.

Let me then conjure you, Gentlemen, no longer to neglect this Operation, nor to suffer the most genteel Part of our Art to be usurped by these intruding *Impostors*, who leaving their proper Occupations, turn *Eye-Quacks*, altho' they know nothing of the sublime Subject they work upon, no more than of the *Materia Medica* with which they work.

Your Predecessor, Mr. *Banister*, (whose Breviary relating to these Eye-Cheats is well worth your perusal) made himself famous in this Way, and yet was bred up to general Practice, and continued therein, till the Multiplicity of this Business diverted him therefrom.

He wrote a Treatise above a hundred Years ago, of the Diseases of this Part, the Eye and its Coverings, which he numbers up to an hundred and thirteen. Since him, unless Master *Turbervil*, we have had few Persons of Learning or Education, who have cultivated this most useful and ornamental Part of *Chirurgic Practice*, though several have well described the Organ, as Dr. *Briggs*, and some other curious Anatomists.

Dr.

*Cataract
and Suffu-
sion.*

Dr. *Pitcairn*, in his Account of a *Suffusion* or *Cataract*, hath taken notice of a vulgar Error that hath long prevailed among us, in relation to this Affect, which being short, I shall lay down in his own Words, or therewith corresponding.

‘ There is, *saith he*, one inseparable Sign of a *Suffusion* or *Cataract*, taken notice of as well by others as *Plempius*, (who by the way, has wrote admirably well of the Diseases of the Eye,) which I would have noticed by all who study the Nature of the Eyes, not to agree in any respect at all to a *Suffusion*; for they affirm a *Suffusion* to be then drawing on, when various Representations float before the Sight, as *Hairs*, *Dust*, and the like; which Appearances are, in the Opinion of all *Physicians*, a true and legitimate *Suffusion*, if they are represented continually without any Intervals.

‘ These Representations they ascribe to Corpuscles floating in the *aqueous Humour*, which by increasing, form the *Cataract*: Some also ascribe them to the Condensation and Coagulation of the *aqueous Humour*, and others to that of the *crystalline*; but all these know nothing of the Nature of the Eye.

‘ For such Corpuscles floating in the *aqueous Humour* or *Crystalline*, either are not perceived on the *Retina*, nor any thing adhering to the exterior Surface of the *Cornea*, nor a *Cicatrix* therein, can make the Representation of any Image on the Bottom of the Eye; whence neither one nor more of these can be the Cause of the Appearance of little Bodies swimming about, as it were, in the Air: For such is the Convexity of the *Cornea*, and the Position of the *Retina*, that an Object must be placed at a

‘ greater

greater Distance from the *Retina*, than the *Cornea* is, in order that its Image may be distinctly painted on the Bottom of the Eye, that is, that all the Rays proceeding from each Point of a visible Object, may converge to as many Points on the *Retina*; whence there is no Point in a visible Object, from which Rays flowing do not, at least ought not, to touch every Point in the *Cornea*; therefore, unless all the Rays emitted from each Point of an Object, are collected in one Point of the *Retina*, they will not be of sufficient Force to represent there the distinct Appearance of the Points, *i. e.* the Image of the Object. But it is impossible this should be effected, according to the Rules of *Optics*, if the Object be too near the *Retina*, or not removed from it a sufficient Distance.

‘ Hence it follows, that if the Beginning of a *Cataract* is accompanied with the Representations of Images floating about, then there is also in the Eyes a *Gutta Serena*; and in such a Case, although the *Cataract* be removed by a Surgeon, yet an incurable Blindness will ensue, which often happens, and seem’d to be the Case of the Patient of *Timæus*, in *p. 55. Book I.* where the honest Man took that for a simple *Suffusion*, which was also a *Gutta*.

But now, tho’ we have been wanting of Men truly learned and judicious for this Practice, yet are we never without our *ordinary empirical Oculists*, and of late, some *extraordinary Pretenders* hereunto: So that through your Neglect of improving this Branch of your Profession, the very Name of *Oculist* has, in my Remembrance, implied little other than *Fraud, Collusion, Cozenage*, or downright picking the People’s Pockets,

extorting large Sums of Money paid before-hand, and warranting a Cure, or Recovery of Sight, where the same is absolutely irretrievable. But I am very sensible I digress, and have nothing to plead for my so doing, unless a hearty Zeal for the Profession, of which, for many Years, I had the Honour to be a Member.

The Symptoms next recited, were the *Anchylops* and *Ægylops*, Diseases of the internal *Canthus*, or Corner of the Eye, in which the *lacrimal Gland* is concerned, and from whence the *Fistula* of the same Part is called *Lachrymalis*.

Fistula lachrymalis. Before it ulcerates, it is by the *Greeks* termed *ἀγκύλη*, but afterwards *Ægylops*.

The *Prognostic* may be gathered from the Method of Cure, in which, Universals premised, such as *Bleeding*, *Purging*, &c. you may attempt to resolve the Humour by some gentle *Anodyne* and discutient *Cataplasm*, such as was directed for the *Pblegmon*; but if it inflame and suppurate, you must hasten *Maturation*, as well as the Discharge, by reason of the Part it lies upon, and the Danger thence arising by Delay in letting out the same. Having dilated the *Sinuosity*, and digested the little *Abscess*, you may try a *Sarcotic* of *Myr. Aloes*, and *Sarcocol.* made up with *Mel. Ros.* or a Tincture of the said Gums in Wine, mix'd with equal Parts of the *Mel.* But when notwithstanding your Endeavours to *incarn* and *agglutinate*, the Matter still continues to discharge, not only by the outward Orifice, but also under the *Cilium* into the Corner of the Eye, you may try some more powerful Desiccative; such is the Solution of the *Lapis medicamentosus Crollii*, in *Aq. Plantag.* or a strong *Aq. Calcis*, assisted by suitable Compression on the Cavity, for which a late invented Instrument by the Skrew

Skrew has been admirably well contrived and adapted.

These falling, it behoves you to consider whether or no you have a good Basis or Foundation to heal upon; and having made Trial thereof by your Probe, if you discover any Roughness on the subjacent Bone, or if the same be bared of its Covering by the Acrimony of the Humour, it will be to little Purpose to proceed farther in the Way you are in, till by a fine pointed actual *Cautery* you have dried the same, and fitted it for *Desquamation*, or perforated quite through, thereby deriving the Matter by the Nostril, and disposing the *Caries* to throw off that way; when your outward Ulcer, which before had baffled your Endeavours, will heal up with the milder *Epulotics*, or perhaps with a little dry Lint, without any farther Disturbance.

Note, That in the Use of Medicaments to this Part, you must not only have Regard to the Eye itself, so near at hand, but to the *Gland* and its *Caruncle*; for if the same happen to be too *detergative*, *corrosive*, or *sharp*, there may be danger of *Rhyas*, or Consumption of the said Part; as by the *Digestive* and *Sarcotic* too long continued, an *Encanthis*, or too great Prominence of the same, may ensue: For which, as *Incar natives* will be wanted for the former, so *Catheretics* may be required for the latter.

The *Epiphora* is another *Species* of the Disease, *Epiphora*, which by Dr. *Pitcairn* is termed *Oculorum Catarrhus*, being an Affection, as he says, of the *Tunica adnata*, and arising from the arterial Blood, crowded and dilating the Glands there situate, having the same Cause and Cure also (as this Gentleman delivers it) with other *Catarrhs*.

But this Account suits better, I think, with the *Ophthalmy*, or common Inflammation of the *Adnata*: The Distemper here intended, being oftentimes the Result of the *Small-Pox* and *Measles*, by which *Diatheſis*, or preternatural Disposition of the Body, the Blood having contracted a *strumous Discreaſy*, and depositing ſome of its acrid Serum upon theſe Parts, their Texture is hereby vitiated; and not only the *Glandules*, with their *excretory Duets*, but the *Tearbag*, (as it is named by ſome of our modern *Anatomists*,) with the *Puncta lachrymalia*, are eroded and ſet open, whence this *Taraxis*, or *Humorum Perturbatio*, with a continual Effuſion of the ſerous Humour, involuntarily proceeds.

In order to remedy this Malady, which is very difficult, and, when of long Continuance, I think irremediable; *Universals* being premiſed, ſuch as *Bleeding*, *Blistering*, *Iſſues*, with proper *Purgatives* repeated between whiles, as alſo a ſtrict *Regimen* in Diet, which ought to be drying rather than moiſtning, the *Topics* propoſed by the ſaid noted Phyſician, are theſe:

Fiſt of all, to blunt the Acrimony of the Humour, and conſtringe the *Glandules*, from which the ſame is apt to ouſe forth, a *Fotus* may be prepar'd *ex Decoct. Fol. Malv. Biſmalv. Cort. Granat. capit. Papav. alb. Flor. Melilot. Balaust. & Sem. Fœnugreci*; vel,

℞ *Aq. Roſ. & Fœniculi, ana ℥ij. Infuſ. Croci Metal. 3℔. Margarit. pp. ʒij. Vitriol. alb. ʒ℔. Trocb. alb. Roſ. pp. 3℔. m. f. Collyrium.*

℞ *Aq. Fœnicul. Flor. Chamæmel. ana ℥ij. Lapid. Tutia pp. 3℔. Saccb. Saturn. ʒ℔. m. pro Collyrio.*

℞ *Aq.*

℞ *Aq. Plantag. vel melius ejusdem Decocti in Aq. F. ℥iij. Aq. Flor. Chamæmel. ℥j. Mucilag. Sem. Psyllii in Aq. Ros. extr. ℥ij. Vitrol. alb. ℥ss. m. f. Collyrium.*

In the mean time, let the Corner of the Eyes be touched with a little of the following Ointment, which our Author aforesaid affirms to be a most excellent one for the Purpose, viz.

℞ *Butyr. Maialis, sine Sale & Aq. Eupbragiæ prius loti, ℥iv. Tutia, pp. Sacch. cant. alb. Pulv. & Sang. Drac. pp. ana ℥ij. Margarit. pp. ℥jss. Vitriol. alb. gr. vj. Sarcocol. ℥ss. Camphor. ℥ss. Laud. Lond. gr. iv. m. f. Unguentum, vel,*

℞ *Unguent. Pomati ℥iv. Sacch. Saturn. ℥jss. Camphor. ℥ss. M.*

Or lastly, this Cataplasm of Poterius may be laid over the Eye-lids, the great Virtues of which, the same Person acquaints us, he has often experienc'd, being shifted twice a Day.

℞ *Pulp. Pomor. acid. in Aq. Ros. coct. ℥ij. Mucilag. Sem. Fænugr. ℥ss. Alb. unius Ovi, Lapid. Hæmatit. pp. ℥ss. Cort. Granat. pp. ℥j. Cremoris Lactis, vel Ol. Rosar. q. s. ad Consistentiam Pultis, M.*

But more of this kind may be taken from what we have said already concerning *Ophthalmia*.

The next was the *Ozæna*, an Ulcer of the Nostrils, so named from its fetid or strong Scent, which, if *strumous*, has usually the same Attendants for its *diagnostic* Signs, with the *Ophthalmia*, and should more methodically have been placed among the *Ulcers*; but having a Design

of bringing all the *Species* of the Disease under one View, I shall observe it here.

Oxæna.

The *Oxæna* admits of a doubtful *Prognostic*, being a stubborn Malady, hard to cleanse, so as to get a firm Foundation for healing upon, and when of long standing, a Work difficultly accomplished.

In the Cure, the usual Evacuations by *Bleeding* and *Purging* may be necessary to carry off the Humour other ways, whilst the same *antistru-matick Alteratives* are prescribed, as for the other *Species*, to correct the Acrimony thereof; and having loosned the crusty Matter usually stopping up the Passage, by putting up a little Oil, a Bit of fresh Butter, or throwing up some emollient Injection, such as the *Decoct. Malvæ in Aq. Hordei*; you are, after thus digesting, to mundify or deterge by another Sort prepar'd *ex Fol. Agrimon. Plantag. Centaur. Min. Hyperic.* adding to the strained Liquor a little of the *Mel. Rosar.* as ʒj. to ʒss. Or if the *Ulcer* be putrid, the Tincture of *Myrrh.* and *Aloes*, ʒss. more or less, according to the Degree of Putrefaction, and the Sense of the Part, may be added: As also the *Unguent. Ægyptiacum* ʒj. or more, especially the *Mel.* thereof fluctuating on the Top, which may be farther increased, and is a most suitable Medicament, not only for the fordid Ulcers of this Part, but of the Throat also.

The Ulcer being deterged, we may attempt to heal or dry up the same with *Unguent. Tutie*, thrust up with a Tent, or some other *Epulotic*, which availing not a stronger Desiccative must be used, as a Solution of the *Lapis medicamentosus*, or the *Aq. Calcis*, with a little *Mel. Rosar.* likewise a strong Tincture of the *Fol. Rosar. Cort. Granat. Flor. Balaust.* drawn in the *Forge-Water*,

Water, or a rough stiptic Wine thrown up with a Syringe, made with a Snout for that Purpose.

But when these and other *Errbines* of the like drying Nature succeed not, we have Recourse to the *Cinnabarine Fumigation*, of which I have amply discoursed in that Part of my *Siphylis* relating to this Symptom when it proves *venereal*.

Some have recommended the Fume of the Wax-Candle to be burned under the Nostril, for the same Intention, at least within Reach of the Smoak thereof.

But observe, that in setting about the Cure of this Disease, as well as the *Ophthalmia*, with certain others of the same Tribe, you must be careful to distinguish the *venereal* from the *strumous*: For, as in the *first*, we can do nothing without *Mercurials*; so in the *last*, together therewith, we are to direct some *antistrumatic* Remedies between whiles.

The *Labrifulcium*, or chapt Upper-Lip, an-*Labriful-* other Attendant on the *Strumæ*, is best provided *cium*. for by the same internal Course, prescribed to alter and rectify this particular *Dyscracy* of the Blood and its secreted Juices, which, together with *mercurial* Purgation, oftentimes takes down the Swelling, at least for a Time, till by getting of a fresh Cold, or some other Trespäss in the *Non-naturals*, a new Fluxion arises, and the Part swells up again.

The Chap or Cleft itself may be anointed with a little *Ol. Amygd. cum Sperm. Cet. Unguent. Tutia*; or my Cerate *de Lapide Calaminari*. Dr. Bate has two Remedies in his *Dispensatory*, the one he calls his *Unguent. ad Fissuras*, the other *Ol. Tritici*, being an Oil strongly express'd from

Wheat bruised, and put between hot Iron Plates; which, however they may happen to succeed in common Chaps or Clefts in the Skin from the cold Air, to which many People are liable, yet I much suspect their Efficacy in our present Case.

Arnoldus Boot has treated of this Symptom more particularly in his 10th Chapter, as you will find under the Title of *Chilocace*; where in the first Place he tells you, that as Children are the usual Subjects of this Disease, it is necessary the Remedies should be made as palatable as can be. He begins the Cure therefore with an opening Apozem, *ex Decocto Fumariæ, Beton. rad. Lapatb. Cichor. Polypod.* rendering the same purgative with *Sena, Agaric. Tamarind.* of which the Diseased is to take a Draught two or three Times in a Day, rendered pleasant with a little Syrup of Violets or Cichory; having made a general Evacuation by the Lancet, he bleeds with Leeches behind the Ears, in the way of Revulsion, as also *Fontanels* or Issues.

His Topicks for the Lip are *Epithems* in the Way of *Fotus*, prepar'd *ex Decoct. Herb. Chærefol. Pentaphil. Myrridis, Rosar. rub. ac Fol. Salviæ*, in which a little *Sal Vitriol.* or the *Vitriolum album* depurated by repeated Solutions and Coagulations, has been dissolved; whilst the Chap or Cleft on the inside is touched frequently with a Mixture *ex Aq. Plantag. Sacch. Satur. & Mel. Rosar.*

Tonsillæ.

The *Tonsillæ* were the next of the *Species* we observed, which, if the Symptom of this Disease, are sometimes so enlarged in Bulk, as to meet on each Side the *Uvula*, to the Hindrance of Swallowing, as well as Impediment to the Voice.

When

When they have been of long standing, and continue always the same, or rather are still enlarging in their Magnitude, and arise not from the intercepted Perspiration, or common *Catarrh* upon these Parts, it is to little Purpose to go to work with *Gargarisms*, either *restringent*, or *resolutive*; there being nothing now but *Extirpation* of the enlarged *Amygdala*, by *Ligature*, *Excision*, or their Consumption by the *potential* or *Actual Cautery*, that can free the Patient from this Trouble and Inconvenience: Neither of which are yet to be enterprised, but by a skilful Hand, and after full Assurance, that there is nothing *malign* or *cancerous* in the Swelling; as there is likewise a steady Hand required in the Surgeon, so also good Resolution and Presence of Mind in the Patient, at these Times, that no Disturbance be given in the Operation, especially that by cutting, the Nature and Manner of which, Mr. *Wifeman*, as well as some other Writers of *chirurgic Operations*, before taken Notice of, have described and laid down, to whom, for greater Dispatch, we must refer you.

The *Ranula*, however numbred by some among *Ranula*: the *strumous Symptoms*, is often met with, where there is no Appearance of that Illness.

It is a soft, whitish, and as it were, a pellucid Tumour seated on the sublingual Glands, on each Side the *Frænum*, or Bridle of the Tongue, sometimes on one Side only, at others on both, extending thence to the farthest of the *Dentes molares*, and lifting up the Tongue, hinders the free Motion of the same, occasioning a thick Speech; which some have fancifully compar'd to the Croaking of the Frogs: Others, from a supposed Resemblance that this Tumour hath to that Creature, will have it thence denominated *Ranula*.

The

The *Prognostic* of this *Tumour* carries more imaginary than real Danger, being frequently cut or burned into, and quickly healed.

As for *Topicks*, it is but seldom that they gain upon the same, especially, when it has been of long standing: However some of the volatile or of the fixt Salts, with certain Aromatics and stiptic Powders, may be held under the Tongue, to attenuate the viscous Humours and discuss the same; such as the *Sal. Ammoniacum*, *Sal. Gem.* *Pulv. Rad. ZZ^{ris} Caryophil. aromat. Cort. Grand. Hyssop. sicc.* & *Pulv. Gallæ*, &c.

These, with others of the like Nature, having been ineffectually tried, you are to open the Tumour, and let out the Contents, either by a pointed *actual Caution*, which is commonly made Use of, or by Incision.

HIST. XVI. Some Years ago a young Woman came to me, with such a Tumour on one Side of the Tongue, out of the Hands of a famous *Empiric*, who having got some Money of her, and not knowing what to make of it, altho' at first he had promised her Cure, left her off as incurable, with this sad *Prognostic*, that if it were opened it would be present Death: I proposed the said Opening, upon seeing what it was, but being terrified at his Words, she applied to some others who were of my Opinion, and assured her there was no Danger: Upon which, returning to me again, I appointed the next Day for opening the same, when heating a pointed *Caution*, whilst a Servant held her Head on each Side, another bearing hard up under the Chin, I laid my *Caution* upon the Fore-part of the *Tumour*, pressing it down with my left Hand, whilst with my hot Iron in my right, I entered the same, and instantly burn'd through the Tunic, upon which there

there spurted up a glairy Matter, like the *Whites of Eggs*, the usual Contents of the like Tumours; after which, I supplied her with a Lotion prepar'd of *Aq. Hord.* in which some of the vulnerary Plants had been boil'd, edulcorated with *Mel. Rosar.* to a Pint of which $\frac{3}{4}$ of the Tincture of *Myrrh* and *Aloes* had been added, for the better Deterfion: and I heard no more of her in ten Days Time, she living remote from me; when she came again, and shewed me the Wound almost healed up, the *Slough* having cast off some Days before; however, in two Months Time it filled again, emptying itself as it overflowed, out of a small Orifice, still remaining unclosed; into this I clapt the Shank of a small Pair of Probe-Scissars, and slit up the Length of the Cavity, out of which feeling along the Wound, with more of the same Humour, I turned out a small Stone, as big as a Horse-bean, and much of the same Shape: Afterwards I dressed her daily with Dofils of Lint, thrust down to the Bottom of the Wound, dipt in the said vulnerary Decoction, with equal Parts of Spirit of Wine, and about a fourth of *Mel. Rosar.* giving Directions for more of the same to be laid in, as the former happened to slip out; and thus after few Days, the *Cystis* digesting off, and the Wound well cleansed, was after firmly *cicatrised* by some of the Decoction I had formerly used, and never afterwards created her any farther Disquiet.

That Stones, some of them gypseous or brittle, like the Gout-Stones, others more solid, like those found in the Bladder, should be formed about this Part as well as the Tonsils, and others near adjoining, we have many Examples in old Authors, particularly *Hippocrates*, *Avenz. Thomas à Viega*, *Gentillis*, *Guaynerius Benedict. Kentmannus*

Kentmanus Gemma, as well as in *Riverius*, *Forrestus*, *Borellus*, with others; and that *strumous* Patients should be liable to such Concretions is less admirable, if we consider the Proneness of their Juices to Coagulation.

The *Bronchocele* and *Ganglion* I shall observe in the next Sections.

White Swellings, vulgarly so called.

The *white Swellings* of the Joints are the next we shall take Notice of, and these truly are some of the stubbornest Productions of the *strumous* Disease, being rendred still worse, oftentimes by those villanous People, who call themselves *Bone-Setters*, and who seeing a full unequal Joint, presently through Ignorance of the true Cause and design'd Fraud, pronounce it a *Dislocation*, and accordingly set about an Extension of the Limb, by which the Fluxion is presently increased, and *Apostemation* hastned, which might otherwise very probably have been prevented, at least kept off for a much longer Time.

The *Prognostic* of this Tumour is ever doubtful, since there is great Difficulty to disperse it, very hard to keep the same at a Stand, and if an *Abscess* ensues, as great Danger of a *Caries* at the Bottom, rotten Ligaments, fistulous Ulcers, and in the Conclusion a *secondary* or *symptomatical* Consumption, at best a stiff and useless Member.

So that in handling of these Tumours, if the honest Artist cannot handsomely discharge himself, let him arm his Patient or his Friends with a just *Prognostic* of what may happen at long Run: And if he is called in Time enough, let him apply a Defensative all round the Joint, as if the *Knee*, *Ankle*, or *Elbow*, with a moderate laced *Sock*, *Stocking*, *Knee*, or *Arm-piece*, which at some Times, when prudently managed, re-

restrains

strains the Humour, keeping off the Fluxion; and reduceth the Joint into better Shape as well as strengthens it.

In the mean Time let the Physician be consulted, who may, by some *antistrumatic* Course, correct this particular *Dyscrasy* of the Blood, and at set Times purge off the *Cacochymy*, with *Calomelanos* mixed with some proper *Cathartic*. Above all, you must mind well, that you are not deceived, in taking the Case either for a *Dislocation*, or some common *Abscess*, from the one undoing your Patient by rough Usage, under Pretence of setting a Bone that was never out: By the other treating it with *Maturatives*, and making Work for a fistulous Ulcer with foul Bones, which will never after be in your Power to heal up again. As a farther Guide in the Way of a *Diagnostick*, if the *Tumour* be of the *strumous* Kind, arising more especially from an internal Cause, there are usually some of the other Symptoms attending, as *sore Eyes*, *swell'd Lips*, *Glands about the Neck*, or *under the Chim*, or the *Parents have been subject to the same Distemper*, and *entailed it thus upon their Issue*. But if its Rise were first of all from some Strain or Bruise, the greater Caution is required in forming a right Judgment.

If *Matter* be already made, and that you are engaged in the Work, having secured your Reputation by the *Prognostic* as aforesaid, the same must be let out; when finding, as it often happens in such Cases, the Joint foul, or the *Apopyses* of the Bone *carious*, you are to proceed, as in such *Ulcers* and *Fistulas* shall be hereafter observed, and as you may collect from a Case or two presently to be annexed; the like in the *carious Ulcers* of the *Fingers* and *Toes*, *Carpus* and *Metacarpus*,

Metacarpus, Tarsus and Metatarsus, Exostosis, and Spina ventosa.

HIS. xvii. A little Miss about ten Years of Age, the only Child of a Linen-Draper in *Cornhill*, having for some Time past, been troubled with the *Labrisulcium* or swell'd Lip, quickly after had the same *strumous Disorder* seized on the upper Joint of the Thumb, or that next adjoining to the *Metacarp*. The Joint grew thick and large, beginning to stiffen in its Motion, with the Extremity of the Thumb pining and growing smaller by the Nourishment intercepted, as usual in the *strumous Affects* of these Parts; at least appearing so, from the Disproportion to the Part tumefied so near adjoining, there seemed Matter to be gathering, though as yet deep.

Upon Sight of this *Tumour*, and a View of the Lip, I gave them to understand, that the Distemper was what we call the *Evil*, and that they must expect a foul Bone underneath the Swelling, so soon as it might happen to break, which it now seemed to threaten, having changed its natural Colour, to a somewhat red and inflam'd Complexion.

However not being over-hasty to engage in the Work, I left them to take other Advice, not caring to lay on any Application, till they had so done: But hearing nothing from them till some Weeks after, I understood the Matter had made its Way through; when I was again consulted, together with Mr. *Bernard*, and Dr. *Edward Tyson* deceased; upon searching, we found the Ligaments all loose, and the two Extremities of the Thumb, and *metacarpal Bones* cariated or rotten: Upon which we all concluded, that it would be a Work of long Time at the best, and the Issue then uncertain; that the *chirur-*

ic Intentions were to lay the Bones in View, and prevent the spreading of the *Caries*, whilst the *physical* was level'd at the Disorder of the Blood supplying Nourishment to the Disease, to mend the *cachectic* Habit of her Body, more and more approaching, and secure her from the *Phthisis*, which seem'd to threaten from the same.

Accordingly with a Sponge-Tent, there was Way made to the Bottom, which together with the *Præcipit. rub.* to keep under the luxuriant Flesh, after several Months Attendance, dispos'd the *carious* Bones to separate from their Ligaments, where in some Places they were pinch'd to Pieces, whilst the *Internode* of the Thumb was rais'd in its whole Substance; which having now no Support or Connexion with the *metacarpal* Bone, hung only by its musculous Flesh, and was perfectly useless; wherefore I was desirous to have the same separated, by no Means expecting in such a poor diseased State, as we had to do with, any *Callus* to intervene, at least so as to supply the Place; but the Parents opposing, it was left on.

Her Physical Course consisted chiefly of a *Decoct. Sarsap.* with *Aq. Calcis*, giving *Calomel* over Night, and an Infusion of *Rhubarb* in the Morning, which were repeated as her Strength allowed.

When at length thro' Want of Exercise, by Reason of a *Hemiplegia* also befalling her, she fell into a *Chlorosis*; the Physician was again consulted, by whose Advice, a gentle *chalybeate* Course was now prosecuted, with a bitter *stomachic* Tincture: But then growing *hæctical*, with a Cough and difficult Breathing, *Pectorals* were prescribed, with other *traumatic* or *vulnerary* Decoctions.

Yet notwithstanding all Endeavours, either by *Physic* or *Surgery*, and many repeated Consultations with other Gentlemen of both the Professions, we still lost Ground; the Habit of her Body now growing *oedematous*, especially her Feet and Legs, with the Arm of the Side affected; For which Reason I was very desirous of a Dismission, from so unsuccessful a Work as this was like to prove; acquainting them for that End that I could do little more than keep the Ulcer clean, the *Caries* being still likely to spread farther over the Bones of the *Metacarpus*, as it did some Time after, bursting out in several *Abscesses* which wanted to be laid open; some in the Palm, others in the back Part of the Hand; and what was farther discouraging, such was the hard Lot of this once promising young Lady, that a new and *white Swelling* arose upon the Cubit at the Year's End, which at length inflaming, seem'd quickly after to threaten *Apostemation*, having already lock'd up the Joint, and rendred the same immoveable.

Under all these Discouragements, being still importuned to assist the poor Child the best I could, when I had got the rotten Bones in Sight, and the Ulcers in good Order, as to any *fungous* Flesh, I gave Instructions to a Maid-Servant hired for that Purpose, and who had seen the Method for some Months past, under the Eye of the old Lady, how to supply my Place: So that I visited them only twice a Week, and sometimes when out of Town, but once; till the Swelling being fit for opening upon the Elbow, I applied a *Caustic*, and discharged about a quarter of a Pint of a wheyish dreggy Matter; which being let out of the Outside of the Joint, where the Tumour was most prominent, and introducing my

my Probe through the Perforation made in the *Eschar*, I found a rotten Bottom here also, the *Process* of the *Ulna* called *Olecranon* lying bare; which having dilated, after Separation of the *Eschar*, so far as was necessary to apply my Dressings to the Bone, and removed the rotten Superstructure, I slackned my Attendance as before, coming only to visit them once a Week: In which Interval, a bold confident *Pretender*, to the Cure particularly of this Distemper, got Admittance to the Mother, which, I understood, he had for some Time before attempted, and under a *Cloak*, I should say rather the *Gown* and *Cassock* of Religion, promis'd such extraordinary Matters, setting forth a *Narrative* of the like miserable Circumstances himself had in his Youth been under, and his Recovery by the most *inoffensive Medicines*, without any cutting, burning, *Cauteric*, or other painful and terrifying Method of Chirurgeons, and their severe Usage of their Patients: That listening at length to this *seeming Saint* (tho' one of the vilest Men upon Earth) my Patient was brought forth, where the Maid taking off the Dressings, he seem'd to pish at the Disease, declaring he had been ten Times worse himself, having lost both Fingers and Toes thereby, and assured them, under God (*though he knew he was then about the Devil's Work*) that in twelve Months Time he would restore her to perfect Health, so vanquishing the Seeds of the Distemper, that she should be out of Danger ever after from any Relapse.

Upon which the Child's Father came to me, to let me know, that as I had long since shewn a Readiness to quit this unhappy Work, he was now come to give me a Discharge, with his Thanks, for what (according to my best Endeavour,

vours, together with the Gentlemens Assistance he had consulted along with me) I had done for his Child's Relief: For which he paid me four-score Guineas, telling me candidly at the same Time, what had past betwixt his Spouse and this *wicked Priest*; when knowing the Drift of these Sort of Undertakers, I caution'd him not to be too liberal in paying any Sum in Hand, assuring him I would return him what he then paid me, if that *vile Pretender* made good his Promise.

He said, he ask'd for no Money till the Cure was perform'd, which I thought very strange, those People usually securing all they expect before they begin, well knowing they are likely to merit nothing more: But this *Empiric* finding he could not gain his Point the common Way, was forced to contrive another *Bait* to catch them, which was this.

When he had dress'd the Child about a Month with a superficial Plaister, neither regarding *foul Bones*, nor *fungous Flesh*, with which the Ulcers were quickly overspread, thus easily, without the usual Complaints, depending chiefly, as he said, upon his Wonder-working *Diet-Drink*, he told the Lady, that the same was very chargeable, and that being poor, he desired she would let him have five Guineas to lay out at Market; and thus once in a Fortnight or three Weeks he accosted the credulous old Lady, with such an Air of Religion and strict Piety, that he this way bubbled them out of many Pounds; when at about three Quarters of a Year's End, at least two or three Months short of the promis'd Recovery, the Distemper still getting Ground, and the *Caries* spreading, the Child daily pining, fell into a *Marasmus*, and died in the Night following that very Day this bold *Pretender* had

had given them still Encouragement to hope Success.

The last and most deplorable among the *stru- Spina ven-*
mous Affects, that we recited at the Beginning, ^{*iosa &*} were the *Spina* and *Exostosis*, which we cannot ^{*Exostosis.*}
stay to particularise, otherwise than may be collected from the following History.

A young Woman, of a *strumous* Habit, having ^{HIS. xviii.} for several Years past been afflicted with a swelled Leg, growing still fuller and harder, and beginning also to be more painful, was carried from one to another, who were at a Loss what to make of it: However, Endeavours had been used by *Plaisters* and *Pultises*, some to dissolve, and others to bring it to *Suppuration*. At length an *Abscess* arising, the *Tumour* was opened, but could by no Means be brought to heal up again; the Ulcers still spreading, till at length the Bone was discovered *carious*, and laid bare, for many Months, expecting a *Desquamation*: But being tir'd with *Surgery*, and very probably the Surgeons they had made use of, at least some of them, tir'd with the Work, they contented themselves with prosecuting such Directions as had been given them by one of the last they had made use of, who had told them truly, it was like to be a Work of Time, and in great Measure to be committed to *Nature*, still hoping for some lucky Turn by the coming down of her *Menses*, which had been long expected to no Purpose, she might gain the better of this obstinate Distemper.

But long Time now elapsed without these Visits, and the Ulcer still encreasing with *callous* Lips, they were advised to take my Opinion; who, upon Examination, perceiv'd a *Sinus* running down from above, which was just beneath the

Articulation of the *Tibia* with the *Femur*, on the Inside the Leg, the whole Length of my Probe, towards the inner Ankle, the Bone bare and rugged all the way; from whence pressing upwards, a Matter like the Dregs of Oil discharged. The upper Part of the *Tibia* was spongy, like a Honey-Comb, and vastly dilated by its bony Cells, shooting forth like the *Hyper-sarcosis* in the Flesh, although at the same Time it was hard and solid all the way downwards, from two or three Inches below its upper *Apophyfis*, till within as many of the lower, where it seemed by its Bunching to be of the same Contexture, porous and spongy, like the common *Exostosis*.

The Patient was much wasted, and in great Danger of sinking, being spent and tired out with Pain: I would willingly have dismembred her, as perceiving no other way of ridding her from her Grievance; yet the Operation was too hazardous for me to press it farther than they inclined, or should indeed seem to desire it: But this being opposed, and myself importuned by one of the Relations, my particular Friend, having made my *Prognostic*, I began, I cannot say her *Cure*, but an Essay for her Relief, by laying on a *Caustic* below, in order to intercept the Matter, and give Discharge thereof by a more depending Vent for the same; as also that I might the better discover the Extent of the rotten Bone, and convey Remedies thereunto. The Lips of the upper Ulcer were sprinkled over with *Precipit.* the Bone itself with the *Pulvis Euphorbii*; and so soon as the *Eschar* was cast off below, I made way to the Bottom with the said *Precipit.* and a Digestive on the outside, strewing here likewise on the Bone the said *desquamatory* Powder.

But

But finding this a very slow Way of Proceeding, altho' the Matter, or rather medullary Substance was much better drain'd off than before, yet the true Nature and Extent of the *Caries* not being discover'd, I prevail'd for dilating the *Sinus*, and laying both Ulcers into one; stuffing the Incision with hard and dry Dossils of Lint, and binding the same on with as streight Deligation as she could admit.

The next Day taking out these Dossils, which had well distended the Wound, I discovered the Inside of the *Tibia*, with its Ridge upon the Shin, a great Part with my naked Eye, and the rest with my Probe, from a little below the Joint of the Knee to as little Space above the *Malleolus*, *cariated* or rotten; then dressing, as before, with my dry Lint and Digestive externally, I rolled it up again.

Having got thus much of my Work in view, my next Concern was, how to remove the *callous* Lips of the old Ulcer at the Top, that had been of many Years continuance, and to get a Separation of the foul Bone; for I found my *Precipitate* was as unable to waste the former, as the *Euphorbium*, or the strong Tincture thereof in Spirit of Wine, would avail in the latter.

She had from the Beginning pursued an *anti-strumatic* Course of the *Decoct. Sarsap. Filipendul. Succif. Scrophular. &c.* as laid down for the general Method, together with the *Millepedes*. She had also, as I understood, taken formerly great Quantity of the *Cineres Spong.* for some *strumous* Glands about the Neck, which disappeared after, So soon as I had laid open the *Sinus*, I gave her *Calomel.* in small Doses between whiles, rather as an *Alterative*, at least suffering it to go off itself, than hastening the same away

by Purges given for that Purpose, and this in Hopes to have disposed the stubborn Ulcer to a better Temper.

When I had thus spent about two Months to little Advantage, I contrived a *Canula* the whole Length of the *Cariosity* in Sight, with a Couple of Cauteries, of about half the Dimensions, into which I daily clapt them down by Turns (first heating them) upon the said Bone, in order to dry up the Humidity; which tho' they smoak'd and hiss'd, gave little Uneasiness to our Patient, her Fears thereof lessening after two or three Days using. I would have past the same over the *callous* Lips, but she would not admit; wherefore shaping a Bit of Paste, made out of the Crumb of white Bread dip'd in Rose-Water, and mix'd with *corrosive Sublimate*, after the Manner of the *Troch. de Minio*, I placed the same all round the *Callus*, dressing otherwise, as formerly I had done; but before Night I was alarm'd with the poor Girl's falling (through Extremity of Pain, or the malign Quality of the *Sublimate* affecting the Nerves) into Convulsions, in which I found her between whiles crying out of Pain, and complaining of great Sickness and Faintness at Heart, as she express'd her self.

I immediately unroll'd the Leg, and coming to take a View of the Part, found this poisonous *Escharotic* (which I never after upon such Occasions would make use of) had eaten deep into the *callous* Lips, sticking fast therein, so that it was to little Purpose to attempt much Relief by forcing the same off, the *caustic* Salts having so penetrated, that there was almost a Necessity for their spending themselves; wherefore encouraging the Patient, the Pain seeming a little to abate, upon coming to herself, that
it

it would be for her Advantage, and effectually answer our Expectation, I embrocated all round with the *Ol. Lumbric.* putting on a Digestive, dip'd in warm *Liniment*, over the Outside; ordering a little Morfel of *Theriaca* in a Glass of Canary, as an *Alexipharmic*.

The next Day I visited early in the Morning, and found her Pain much lessened, her Convulsions no more appearing, tho' she continued still restless, with great Thirst, a feverish Pulse, and sick Fits sometimes returning: Also light *Rigours*, though much seldomer than they had been in the Night, intercurring. I found the Crust sticking fast, but after the second Dressing with the warm Digestive, the *Escharotic* came off, bringing along with it a vast *Slough*, and leaving the Ulcer more florid and susceptible of the *Precipitate*: So that keeping the same strewed therewith, and the Digestive over, I could not see but that all Things might go well enough in that respect, could we but find the rotten Bone to move: In order to which we continued the daily Use of the *Cautery* on the same, and although upon Examination I discovered it was farther tainted at each End, yet having no Matter pent in, and so large a Portion thereof in Sight, I could not see any absolute Necessity of farther enlarging, at least till we had Encouragement by its stirring, to proceed farther in order to lift it out.

When I had thus spent about a Year, keeping the Ulcer clean, and the Bone as dry as possible, strewing on either the *Precipitate*, or *Calx viva*, where the Flesh happen'd to be luxuriant, I began now to perceive it shake from the Top to the Bottom, seemingly the whole Length of the *Tibia*, and the greatest Part of its Substance;

stance; at which, I must confess, I was somewhat startled, as expecting small Likelihood that *Nature* in such a Habit would ever supply such Defect, as this must occasion.

For my farther Satisfaction, I passed in a *Terebellum* quite through to the inward Cavity in several Places, whence issued out the same oily Substance, as I had observed flow from the Worm-like Holes, interspersed in other Parts thereof, and this I did with little or no Pain to the Patient.

Once a Week, after this manner, I usually entered this Instrument sometimes into the old Places, but oftner making fresh ones, till I had bored a great Number of them, still shaking the Bone thereby from Side to Side, yet nevertheless I perceived it stuck too fast to be extracted: So that after a Year and half's Attendance, partly through the continued Discharge, and partly through the inveterate and malign Quality of the Disease itself, she grew *tabid*, and an obstinate *Diarrhæa* coming on, which opposed all Endeavours to restrain, obtained a *Quietus*.

The Day after her Decease I opened her Leg from the Knee to the Ankle, and found the *Tibia* about half way through separated, from an Inch below its upper Extreme to about the same Space from the Ankle, entangled or detained by some bony *Striæ* at each End, forming the protuberating Part, or *Exostosis*, and shut in farther by the Muscles.

This doubtless was a true *Spina ventosa*, beginning in the medullary Juice itself, and by its corrosive malign Nature, corrupting the very Bones it should nourish; a Disease, of which the *Greeks* and *Arabians* have taken but little Notice,

Notice, altho' it was doubtless known to both; to the former by the Name *τερεθών*, from a small Worm eating into Wood; also *Pædarthrocace*, *ἢ πᾶσις Puer, ἄρθρον Artculus, ἢ κακὸν Malum*; from its being an evil Incident to the Joints of Children. Under this last Name *Severinus* has written a whole Book; the *Arabians* give it the Name of *Ventositas Spinæ*, and under this *Josephus Pandolphus* has published another, which he calls, *Traëtatus de Ventositatis Spinæ sævissimo Morbo*; this hath been since enlarged a *D^o Georgio Abrahamo Merino, Medico Noribergensi*, printed in the same Place, *Anno M.DC.LXXIV*.

Oethens gives us to understand, that he once took out the whole lower Jaw-Bone corrupted, in a young Girl, a *Callus* after supplying the Place, and serving tolerably in the Room of Teeth, for *Mastication*.

One of the most remarkable of these Cases I have met with, was a Bone shew'd me by Mr. *Charles Bernard*, where the Top of the *Tibia*, to several Inches downwards, was so enlarged by an *Exostosis*, or fungous Extuberance (for I cannot see any Impropriety of calling this Enlargement a *bony Fungous*) that it was as much as I could grasp with my Hands.

From what we have said of this Disease in general, another of your *Opprobria*, we shall find the Cure tedious at the best, as well as troublesome, and also hazardous in the Event; requiring the strictest *Regimen* and Patience in the Sick, as well as Art and Assiduity in the Undertaker thereof; who after all, in some of the *Species*, when he has taken much Pains, will sometimes find the same had been to little Purpose: Wherefore it is less Wonder, that some of you
Gentlemen,

Gentlemen, who are most able, having more than enough of other Business upon your Hands, are so very willing to get rid of this; and that, for this Reason, the *strumous* Patient becomes so easy a Prey to those vile *Quacks*, who get large Sums of Money, some of them, of these credulous deluded People paid beforehand, with fair Promises of a Cure they understand as little of, as the Patients they impose on. *Sed dulcis Odor Lucri, ex re qualibet*, is, at least ought to be, the *Motto* of these knavish *Medicasters*, with which we leave them.

It is true enough, that *Time*, with some lucky Change of *Temperament* sometimes brought about thereby, has wrought wonderful Alterations in this as well as other Diseases; when happy is the last Medicine administred, and the last Person employed at such a critical Turn or Juncture.

It was this Reflection, certainly, that gave Rise to that *Sarcasm* upon *Physic*, *Natura curat Acutos, Tempusque Chronicos*: Which, under a limited Sense may be allowed, without Inveective upon that Art; which if at the same Time wholly neglected, it is most certain, that the one will be found as little able to help herself, as the other to work a Cure abstracted from the said Art. But albeit it is the Misfortune of some to miss theirs, after much Pain and great Expence, yet it has been formerly the good Hap of others to obtain one in this particular Distemper, with as little of either, I mean by the *Royal Touch*: Upon which Subject, because I know the same is ridicul'd by most, I beg the Favour of saying only this.

That

That as it argues great Imbecility of Under-^{Cure by}standing to be *over credulous*, so to be *incredulous*,^{the King's} or *sceptical*, when we have the Evidence of Facts,^{Touch con-} surely, on the other Hand, very disingenuous;^{sider'd and} whether the Cures of this Kind are brought to pass by *the Power of Imagination*, which is capable of performing many Things almost incredible, as I have instanced in another Place; by the Prayers of the Priest, *the immediate Interposition of divine Energy accompanying the same*; or that of *the princely Touch*; or finally to *the Efficacy of the Touch alone*, is not for me to determine; nor can I, who pretend only to make good the Assertion, that such Cures have been wrought, which I find incontestably done to my Hands, by Mr. Serjeant Wiseman, a Person I must needs think, well deserving of this Company, for his Industry in compiling his *Chirurgic Treatises*: In one of which, discoursing of this Malady, he hath affirmed, that in his Attendance upon the public Healings, he had been an Eye-witness (and now I beseech you, can we have clearer or more convincing Evidence) of many Hundreds of Cures performed by his then Majesty's Touch, without any Assistance from Chirurgery? Nay, he does not scruple to affirm, that the said Touch had cured more in *one Year*, than all the Surgeons in London had done in *an Age*.

It may be, I know, objected, that among a hundred thousand, and a greater Number of Persons have been touched, even since the Restoration of King Charles II. it would be very strange, if diverse of them should not afterwards recover, which they might otherwise have done.

I answer,

I answer, that if any of those have been attended with such Circumstances, that the Alteration cannot fairly be imputed to any other Cause, it makes sufficiently for our Position; but instead of one, we have many hundreds, where the Evidence is undeniable.

Mr. *Serjeant Bernard*, whose Name, doubtless will be had also in great Esteem among the learned Members of your Society; how great a Jealousy he might sometimes make among his intimate Friends about these Cures, has notwithstanding seriously affirmed to me himself, in Talk upon the Subject, that he had known many *strumous Glands*, which had stood out against the most powerful *Discutients* and *Emollients*, and that too under the strictest physical *Regimen* for many Months, nay Years, that had immediately disappear'd, after the late *Queen's Touch*, when both *Physic* and *Chirurgery* had been thrown aside.

HIST. XIX. And I can assure you, upon my own Knowledge, that having got a Ticket of him for a poor Fellow in my Neighbourhood, almost blind with a *strumous Ophthalmy*, complicate with large Glands on the *Mastoidei*, which had defied the best of my Endeavours for his Relief, was, in a few Days after the *Queen's Touch*, at a public Healing, as well as ever in his Life, although the Glands had been of several Years standing, and the Inflammation on the Eye, betwixt whiles, of near the same Continuance.

And thus much I have adventured to say upon this *Topic*, even after Perusal of a late *Pamphlet**, purposely set forth to depreciate these Cures, and

* See a free and impartial Enquiry into the Antiquity and Efficacy of touching for the Cure of the *King's-Evil*.

represent the *Princes* practising thereof, as no other than the *Tools* of *parasitical Courtiers*, *knave Priests*, and others, whose Interest it was to carry on the Delusion.

But really begging the Author's Pardon, notwithstanding F. R. S. at the Front of the Performance, I cannot find his *Conclusions* sufficient to make good his *Premisses*; and least of all in that Deduction, *our bearing less of the Disease, and fewer dying thereof* (as he tells us, he has collected from the Bills of Mortality) *since the old Practice was laid aside*; as to which his Opponents may perhaps think it as a sound Reasoning, to draw the Inference thus, *viz.*

That the poor *strumous* Patient being now denied the Blessings of the *ἀποσις ιεγῆ*, or *Charisma asilicon*, Providence may likely have so ordered, that the Disease should less prevail among us; or that such Succour now denied, and the Artist weary of engaging in the toilsome Work, he rests content, without applying any where, till Nature, at long Run, works his Deliverance; or that he is kill'd by some *Quack* obscurely, or in a Corner.

But for my own Part, I can more easily account for this, in that the *Touching* (for we must, it seems, no longer call it *Healing*) being discontinued, the vast Concourse of the Diseased of that Kind from all Parts of the Kingdom ceasing, no Wonder fewer Objects should present.

The Liberty our Enquirer has taken with the Characters, not only of Dr. *Allen*, Mr. *Clowes*, and Mr. *Wiseman*, but Dr. *Heylin*, Dr. *Tooker*, and many other *Divines* of the strictest Probity and Piety, officiating at these Times, as Men prostituting their Consciences for by-Ends, and minister Advantages, is, methinks unbecoming a Gentleman,

Gentleman, and a F. R. S. I would rather hope, if there was nothing but Ceremony in the whole Affair, and no one better'd thereby, as there have been many thousands, themselves might be imposed on, through their Zeal to help the Afflicted, than designing either to impose upon their Prince or their Fellow-Subjects, as the Author's Drift is to persuade us. But I cannot think our Princes, *some of them*, so easy to have been imposed on; nor indeed that, abstracting from divine Right of Succession (which I shall not meddle with) or Benediction either upon the Undertaking, if the Cure is wrought merely by the Force of *Imagination*, having nothing therein *magical*, nor, I am sure, *impious*: I see not, I must confess, any Harm that could, but possibly much Good might have attended its Continuance. And I can do no less than suspect, and shrewdly, as they say too, if those in the *touching* Reigns were to serve a Turn in promoting it, our Author has his Views also, in taking all this Trouble upon himself, of bespattering so many worthy Men; endeavouring to evince, that *as it will be a Proof of the over Credulity of some of our Kings*, to use his own Words, *so will it redound to the Honour of others, who suspecting the Authority of prejudiced Persons* (I suppose he means rather interested and relying on the *αὐτὸς ἐφ' ὅ* of Mr. B——) *have altogether declined the Exercise of it.*

Yet after all, I do not find this Gentleman so much displeased at *Touching* in general, but only with our Kings and Queens; for he owns, Mr. *Greatracks* to have cured a prodigious Number of Persons, even of this Distemper, and some, where King Charles II. had failed; but this Man, he informs us, was one of great Honesty and

and exemplary Sobriety, taking no Gratuity for his Performances: And what are we to inference? Unless the *Quandoquidem*, our *touching Kings and Queens were*, &c. and the *Ergo*, that they have cured no Body, only imposed on their People. But I forget: Being unable to gainsay the many indisputable Recoveries brought to pass hereby, we are run upon this *Dilemma*, that the King's Cures were wrought by the *Royal Majesty* impressing the Patient's *Imagination*; and those of Mr. *Greatrack's*, by his Sobriety and great Honesty.

To sum up the whole in our Author's Words; *Happy is it for us now, that our Minds are free from those Incumbrances; an unrestrained Freedom of Thought, and a right Method of Reasoning, are become the happy Characters of this Age; and as we have learn'd not to suffer our Senses to be imposed upon, so we likewise have, to reduce every Thing to the Standard of Truth.*

From whence we are given to understand, that this great Discovery of the Folly and Insignificance of the *Royal Touch*, to call it by no harsher Names, is owing to the present Indulgence of *Free-Thinking*, above what we enjoyed in former Times; which we need not surely envy any, that were therewith content: But when this *Free-Thinking* has been accompanied with *Free-Speaking*, and *Free-Acting* also, consequent thereto, I fear we have been no great Gainers by the Indulgence; since it is plain to any one, who takes a View of the Fruits thereof, that we have not only *thought* but *talk'd* away our common *Christianity*, as well as *Morality*; and I think we may give Instances of our having *acted* more inhumanly, than any of our Ancestors, when *Free-Thinking* was less in Fashion.

'Tis Time I should now ask your Excuse, as well as that of the Author 'of the *Free Enquiry*, to which, surely, I may lay Claim upon his own Principles, I mean of delivering my Sentiments freely one Way, as he has disclosed his another.

Pardon then, Gentlemen, this Excursion, and I will quit the Subject with this farther short Remark, that as according to our great Master *Hippocrates*, there is a *θεῖον τι*, or *divinum quid*, in the Nature of some Diseases; there may be the same also, for what we know to the contrary, in the Removal of others.



S E C T. III.

Of Encysted TUMOURS.

Also of the fleshy, watery and windy Tumour, with an Account of Ruptures, both genuine and spurious.

IN our last Section, making mention of the *Struma*, we have sometimes used the Word *Scrophula* indifferently therewith, as have others before us: But Dr. *Wharton* (upon whose Authority I cannot say) will have them distinguish'd thus^a.

The *Struma*, saith he, is a Tumour sometimes Likewise less and sometimes bigger, shifting its Residence of the A- from one Place to another; whilst the *Scrophula* theroma, is more permanent, and always increasing, to such Steatoma, Magnitude at some Times, that, as he instanceth, ceris, with there was one in the Hospital of thirty Pounds their Weight. Causes, Signs, and Cure.

^a Vid. *Adenographia*.

Benevenius mentions one as big again, namely, sixty Pound, growing to the Hip, which being gradually streighten'd by Ligature about half way, was after excis'd and cauteris'd, by which the Patient was freed entirely thereof.

Again, *the Scrophula is softer, the Struma harder, the former more superficial, the latter deeper, and more compress'd; the former also is more sensible than the latter.*

In a Word, having summ'd up these Distinctions, *the Strumæ*, continues he, *are among our People called the King's Evil, the Scrophulæ being term'd Wens; from whence it has been infer'd, that he would have the encysted Tumours go also under the Name of Scrophulæ, whilst the other, before described, take that of Strumæ.*

But leaving this Distinction of the Doctor's, there is yet, I think, a more essential Difference, in that the one is truly *glandulous*, the other partly *humoural*, and partly *fleshy*.

Farther, the *encysted Tumour* is with less Difficulty brought to Suppuration, after which the *sloughy Cystes* being digested out, together with the Contents, the Ulcer heals with less Trouble; whilst the *Struma* very difficultly turns to Matter, and creates more Trouble throughly to extirpate and get whole again. They are both indeed very sluggish Tumours, wherefore we have reckon'd them among the *cold* and *chronical*; and whatever Affinity or Disagreement there may lye between them, 'tis certain, the one is more pliable or tractable than the other, and frequently met with in those Bodies, where there is not the least Appearance of a *strumous* Disorder in the Blood.

HIST. XX. I remember to have removed four from the Scalp of an old Gentlewoman, dividing the Skin of

of one of them by a single Incision, and slipping it out whole, whilst I cut into three others at the same Time, and having digested out the Bags, containing their crude Matter, freed her from her Trouble in about three Weeks Time by the common *Chirurgery*; these last were all *Meliceris*, and ready to burst; the other *steatomatous*, or of more solid Consistence. She had a fifth on her Shoulder as large as a Turkey-Egg, out of which, the Skin having been some Time before broke on the Outside, I dilated the same, and took at Times some Ounces of a suety or fat Matter, when filling up the bottom of the Cavity with the *Præcip. rub.* with Dofils dip'd in warm *Liniment*, and a little *Ol. Tereb.* over that also a large Pledget of *Digestive* on the external Part, I left the same in for two Days; and thus after the fourth Dressing, the *Cystis* came away in a large *Slough*, the Ulcer soon after *incarning* by the same Means, lessening only the *Precipitate*, as the Ulcer deterged, and cicatrising with dry Lint, and my *Cerate* of *Lapis Calaminaris*; whereas a *Struma* of this Bigness, and this way attempted, would have been very probably the Work of as many Months, as this was Days, if not, at last, left incomplete. This Kind of Tumour here seated, is by the old Writers called *Talpa*, from the Mole, or rather the little Hills that Creature raiseth above the Surface of the rest of the Ground; in like Sort these Tumours appearing scatter'd up and down under the Skin and Hair of the Head, when they are smaller, as about the Bigness of a little Bean, they are called *Lupia*; the first are usually reckon'd to the *Atheromatus*, the last to the *Meliceris* Kind, though others number it with the *Ganglion*.

We did in the foregoing Section divide these *encysted Tumours* into three Sorts, explaining their Original, viz. *Atheroma*, *Steatoma* and *Meliceris*, whose Greek Nomenclature shall be given hereafter.

The first we define, with other Writers, a *Tumour preternaturally seated on diverse Parts of the Body, very commonly the Head, Neck, Shoulders, and Arms; contained in its proper Capsula, of the same Colour with the Skin, neither easily giving way to Pressure, nor returning easily after the Finger is removed, containing in it Matter like unto Pultis, or hard Curd.*

The second, a *Tumour likewise inclosed, not varying its Colour from the Parts adjoining, arising from a small Beginning as the other, and gradually encreasing; it more difficultly gives way upon Pressure, but soon returns to its former State; there is found therein a Matter resembling Fat.*

The third, is like the other two, contained in a *Cystis* or Bag, of a more round and equal Figure usually than the rest; it easily recedes or gives way, and as quickly returns to its pristine Figure, having a Matter in it like Honey, or the thick Dregs of Beer.

You must note, that all three have this in common, to be attended with little Pain, unless seated upon some more sensible Part, where by the Tension of the Skin they prove troublesome; or lying in the way of the Comb, as upon the Scalp, or in that of the Clothes, they happen to be compressed, and grow uneasy; or if fixed upon some *membranous* or *nervous* Parts, impede the free Motion thereof; or lastly, beginning to inflame, from some hot and suppurative Applications, have some Parts of them turned

into *Matter*; I say *some*, it being rare to find a kindly *Maturation*, like that of the *inflammatory*, by Reason of the cold, viscous and less digestible Contents, of which they are made up.

For as to their Causes, the ancient Writers derive them from *Pblegm* and *Melancholy*, in a degenerate State; but we, from the *nutritious Juices*, ousting out of some *excretory Duct*, at the Sides or Extremities of the Vessels, where being spilt, and having more of the same Juice drilling through, provident *Nature* soon envelops it for its Security, in like manner as the Liquors of the *Ovum*, with its *Pellicle*; where, according to its Proneness to coagulate sooner or later, it is, by the Warmth of the Place where it resides, thickened into a *melleaginous* or *mucilaginous* Kind of Liquor; or by a greater Heat and a natural Fitness for the same, baked into a *Pultis*-like or suety Consistence.

Nor let it seem strange, that this Kind of *Tumour* should sometimes enlarge itself to an extraordinary Magnitude; for being enclosed by an impervious investing Membrane, which grows up with them, and having no *excretory Duct*, it must needs follow, that by continual Supply of more still of the same Liquor entering in, they will amplify their Dimensions.

The Gentleman we so lately quoted, will have them to be certain excrementitious Particles of the Blood, laid aside as useless, in the Nutrition of the glandulous Parts; his Words are these in the same Treatise, p. 254.

‘ Credibile est, hosce Succos concretos Ex-
 ‘ crementa quædam esse rejecta a Carne glandu-
 ‘ losâ in ejus Nutritione. Carent enim hæ Glan-
 ‘ dulæ Vasis cujusvis generis excretoriis, & prop-
 ‘ terea

' terea necesse habent Excrementa sua in Cystas
 ' in Substantiâ earum efformatas congerere: Quæ
 ' una ratio est cur in tantam Molem excrescant;
 ' altera esse potest, quòd earum Venæ impro-
 ' portionatæ videantur earundem Arteriis: Hinc
 ' enim Sanguis per Arterias effusus, copiosior
 ' est quàm is, qui per Venas reducitur; unde ne-
 ' cessariò fit, ut eadem indies augeatur; accedit,
 ' quòd Nervus harum Glandularum perquam ex-
 'iguus est, uti ex Sensu earum obtuso videre
 ' licet. Si enim illos (cutaneis Partibus priùs
 ' dissectis) Aculeis pungas, Dolorem vix percipi-
 ' unt; cum ergo exiles adeo Nervos habeant,
 ' certum est, Incrementum ab Arteriis potissi-
 ' mum accedere, Nervosque superfluæ Materiæ
 ' vel auferendæ, vel in alias Sedes transferendæ,
 ' impares esse.

From what has been already discoursed upon
 these Tumours, it is plain, that they will admit,
 generally speaking, a much better *Prognostic* than
 the *Strumæ*; being neither so stubborn in their
 Nature, nor their Contents so difficultly digested
 and deterged: Yet nevertheless, without removing
 them entirely, together with their Case which
 incloses them, they will be apt to appear again,
 or prove *sinous* Ulcers. When they are fed by
 some large Blood-vessel, or lye close adjoyning to
 any *Membrane*, *Tendon*, or *nervous* Part they
 occasion consequently the greater Trouble, and
 exact our greater Diligence and Care, than when
 loose and disengaged, or pliable and safely situate
 for Removal; which is done, as you have heard,
 either by taking them out whole, or where
 the same is less practicable, to open them ei-
 ther by *Caustic*, or *Incision*; and having di-
 gested and deterged them, together with their
Cystulæ, to incarn, as in other Ulcers, where

there

there is Loss of Substance, and bring on a *Cicatrix*.

Having said I think enough of the Nature and Manner of Production of these *Tumours*, together with the *Prognostic*, we shall touch upon their Cure, which, as we just now intimated, is accomplished with less Difficulty than the *strumous*; nor want they so strict a *physical* Discipline, many of them having been effected without a Grain of internal Medicine, or standing in need thereof; tho' they all require the same Method of Extirpation, unless that the *Meliceris* is more liable to burst, and cannot so readily be turned out whole. But it then makes this Amends; that the Contents being thinner, are sooner discharged, when the *Cystis* only remains to be digested out, the Ulcer after healing with little Difficulty; which brings me directly to add a few Words concerning the two different Methods of Proceeding with them, *Excision* and *Suppuration*, unless when very small, or in the Beginning, they are so kind as to give way and discuss, under some of the *gummy* Applications, such as *Empl. ex Ammon. Diach. cum Gum.* and the like.

The way by *Excision* is doubtless the more expeditious, and may be safely enterprised, where safely situate, I mean free of the *Arteries* and *Tendons*; the Method being alike with that observed in extirpating the *Strumæ*: But greater Caution is sometimes required, that the *Capsula* be not divided, or the proper Bag containing their Humours, together with the other Teguments, lest there happen Difficulty after in turning the same out whole with the Contents.

The way by *Suppuration* is more tedious, for the Reasons formerly alledged; however when by some powerful emollient *Cataplasm*, such as

we have proposed for the *Bubo*, or a Paister of the *Gums* and *Mucilages*, you have digested what you can, and the Matter seemeth ready to break through, you may lay on one of your stronger *Caustics*, such as the *Lapis infernalis*, which will be able to penetrate the investing Membranes, together with that of the *Cystis* itself; after which, and the *Eschar* separated, as was shewn in the *Pblegmon*, the Cavity of the Ulcer must be filled up with your *Digestive* and *Deterfive*, among which none exceeds the *Præcipit. rub.* to answer these Intentions; where the Ulcer is very *sordid*, some use the *Unguent. Apostolorum*, others the *Ægyptiacum*, others again the *Fuscum Wurtzii*; but I think the *Basilicon flavum*, well loaded with the said *Precipitate*, or this latter sprinkled thick (as I have above directed) upon the indigested Remains, will hasten Separation of the same, together with the *Cystis*, as well as any of them, if not much better. After which your chief Care will be to provide a good Foundation for your Superstructure, which is effected by the common *Sarcotics*, as in other hollow Ulcers will be directed hereafter.

But where the Tumour is very large, as in some of the wenny Kind falls out, that are incapable of *Excision*, you will find, after casting off the *Eschar*, a necessity very frequently of cutting up the whole Body of the *Tumour*, in order to cleanse away the Trash therein contained, and destroying their *Cystis*; in some of which you will find a kind of *Curd*, in others a *Gypsum*-like Substance, in others somewhat *analogous* to *Sand*, *Hair*, and such like *Trash*, as we meet with in the apostemated Cells of the female *Testicle* or *Ovarium*.

But

But take heed, that in these Dilatations, as in all others, you carefully observe the Tract of the *Fibres* as much as possible, keeping clear of the *Arteries* and *Tendons*, and securing all you can a good Use of the Part, when you have repaired the Breach.

There is yet another way of removing these Tumours, and that is by *Ligature*, taking Place only where the *Basis* is small, at least not too big for the same, but hanging, as it were, by a *Peduncle*, or Stalk, which being strengthen'd, and the vital Heat and Spirits thereby intercepted, the Part on this Side the *Ligature* first grows livid, after mortifying entirely, separates of itself, or is removed by the Knife, without Sense of Pain, or Effusion of Blood.

In proceeding this way, unless the Stalk be very small, and the *Ligature* may be safely and sufficiently so streightened, as to perform the Work once, you are to make a Slip-knot, by which, for the greater Safety and Conveniency, you may gradually constringe, as your Patient can suffer it; and tho' you are somewhat longer in performing the Task, yet will the same be easier to him, and many dangerous Symptoms of Fever, Convulsion, &c. be avoided, which might otherwise intervene by the too strict and hasty Compression thereof.

When the *Ligature* is fallen, or fit to be cut off, the Part constringed being thereby perished, from its Nourishment now stop'd, growing livid, black, and shrivel'd, you may dry up what remains after such extirpation, with some desiccative Application, as we have shewn in our *Treatise de Morbis cutaneis*, where we handle this manner of taking away certain pendulous *Sarcomata*, with other *Excrescences* preternaturally sprouting hence.

I had

HIS. XXI. I had once a poor *Shoemaker* under my Care, of a cold *pituitous* Temper, who had the greatest Number of these crude *congested Tumours* I ever met with in the same Subject, forwards from the *Clavicles* over the Shoulders to the lower Angles of the *Scapula* behind, no less than nine; some near adjoining to each other, some again at farther Distance, from the Size of Pigeon's Eggs, to that of a large Tennis-Ball; three of the largest were superficially suppurated, and had burst through the *Cystis*, their thick curded Matter appearing in View, being all of the *atheromatous Kind*, and of many Years Growth; finding them safely situate, I undertook the poor Man's Cure, as follows.

Those where the Matter had broke through, I cut farther open by a crucial Incision, at the same Time snipping off the Angle of each Lip, for the more commodious coming at their *Sordes*, and hastening out the same, which I sprinkled thick with *Precipit.* as above directed, and applying a Pledget dipt in the warm *Liniment*, of *Arcaeus*, with equal Parts of *Basilicon*, and a little *Ol. Terebintb.* for its easier Penetration and quicker Digestion, suffering the same to lye on two Days; and thus each Dressing brought off thick *Sloughs* of the viscous Matter, loosening the rest; so that at several Dressings, besides what came thus away, I lifted out with the Point of my *Spathula* several Ounces, till by Degrees in this Manner having cleared away the Rubbish, their *Cystes* likewise digested out, incarnated and cicatrised with the same Applications, and the Assistance of my Cerate.

Those which were yet whole, I opened in like Manner, avoiding the cutting into their inclosing Membranes; when lifting up the Lips of

of the Wound, I separated the same therefrom with my Knife; after clapping down my *Spatula* all round, I divided the adhering Fibres: Yet in raising up the *Cystes* from the Bottom, notwithstanding my utmost Care, most of them broke; but removing the much greater Part at this single Dressing, the Residue was soon after digested out, and those Lips, which lay commodiously for the same, were, after a little Time, by Compresses and good rolling united, whilst the rest, being like to grow troublesome, were taken off, and the Ulcers being mundified, *incarnated*, and after *cicatrised*.

The Work was a little troublesome, and the parting of the adnascent Fibres painful, otherwise neither the Bags themselves, nor their Furniture, little or nothing sensible of the Knife or Applications, however warm and spirituous.

The Rise of these Tumours seem'd to proceed from a crude and improper Diet, such as great Quantities of *Herbage*, *Pulse*, *Milk*, and *Cheese*, with Water for his Drink, being by a Charge too great for the poor Pittance of his Wages, reduced to the utmost Penury; by which, and his continual sitting Posture, stooping forwards with his Strap over his Shoulders, these *pituitous* Humours might very likely be heaped up, and settling upon these Parts, grew at length so troublesome, as to render him in a Manner incapable of pursuing his Employment.

When I had thus freed him from his Complaint, I advised him, by way of Prevention, to leave off drinking cold Water, instead whereof I directed him to a *Guajac. Decoction*, which was easily purchased, as likewise a bitter Infusion, with the *Tinct. sacra* between whiles, to invigorate and fortify the Concoctions, and mend the

pituitous Condition of his Blood; and farther, that he should take all Opportunities of exercising himself, or to supply the same by rubbing of his naked Body with a coarse Hair-cloth, Night and Morning.

The following Case was communicated by Dr. Bower to the Royal Society, which having somewhat therein uncommon and remarkable, I will deliver to you in the Doctor's Words.

HIS. XXII. ‘ *Alexander Palmer*, of the Parish of *Keith*, in the County of *Bamff*, in the North of *Scotland*, about fifty four Years of Age, observ'd, when about twenty seven, a little hard Swelling in the Muscle of the lower Jaw, on the left Side, without any Hurt or manifest Occasion; which at first went on slowly, but after proceeded more quickly, and the older it grew, it still came on the faster, until it increased to a prodigious Bulk and Weight. From the first Appearance of this Humour to the total Excision of it, there were about twenty seven Years: He had excessive Pains and Uneasiness in it, and at last it mightily extenuated and emaciated him, who was otherwise a strong and robust Man.

‘ This *Excrecence* was of the natural Colour of the Skin, and seemed to be an *Alberoma*, being a glandulous Substance, with several big Blood-vessels in it, and had Hair growing on it, as on the other Part, as may yet be seen: It was almost round, and very hard, and was as sensible as the other Parts; for when the poor Man was working in the Fields, some six or seven Years ago, he accidentally made a great Gash or Wound in it with a sharp Iron, which was very painful, but was cured by a Surgeon,

‘ after

after the manner of an ordinary Wound, the *Cicatrix* being still to be seen therein.

This *Excrecence* having grown so big, was attach'd to the Muscle under the left Eye, called *Obliquus minor*, or *inferior*, to the Ear and its Muscles, and to the Muscle of the lower Jaw, named *Deprimens*: By reason of its great Bulk and Weight it could not hang down freely without some Support, therefore it rested on the Top of the Shoulder, which made a considerable Dimple in it, that is yet very observable; besides, it was holden up by the Man's Hand in the Day Time, and laid on a Pillow in the Night Season. Some three or four Days before the total Excision was made, the Patient observ'd this Tumour began to mortify at the lower End, which made him so uneasy, that he took a Knife and cut off a good Part of it. This occasion'd a great *Hæmorrhage*, so that he reckoned there was lost a Scots Pint, or four Pounds of Blood before it could be stopt. The Patient at last applied himself to Mr. Gordon, Surgeon of the Place, who made a total Extirpation of it on the 19th of January, 1717. He made a close Ligature, taking in the Basis of the *Excrecence*, and all the loose Skin, and contracting it as much as possible, he cut it entirely off with a sharp Razor. There gush'd out of the *Excrecence* after it was cut off, and was lying on the Ground, as near as could be guess'd, two Pound of Blood; for it was nourished by several large Blood-vessels, perhaps by some Branches of the Carotid Artery much enlarged, and others coming from the Ear, the Muscles of the Eye and lower Jaw abovemention'd. When Mr. Gordon brought it to us, which was full
 three

three Months after it was cut off, we took off
 with a Knife about a Quarter of an Inch broad
 of the Basis of it, and in that small Space ob-
 serv'd four big Blood-veffels. The Basis, as it
 now appears, is five Inches Diameter, which
 seems too large for the whole Side of the Face;
 so that after the Exsection, I think the loose
 Skin has turned backwards, which may make
 the Basis not appear so big. After all this
 Blood was lost, the *Excrefcence* was weigh'd,
 and was full nineteen Pound Weight; so that
 before his own Incision, and this Operation, it
 behoved to be several Pounds heavier, a pro-
 digious Weight to be depending on such a
 Place. This Tumour was of a spheroidical
 Figure, and when measured, was thirty four
 Inches about by the longest way, and twenty
 eight by the broadest. The *Hæmorrhage*, which
 was great, was stopt by the *vitriolic* Powders,
 and other Astringents; and the ordinary Dres-
 sings were used, and this great Cure compleat-
 ed in six Weeks time, the Patient recovered
 and going about his Business to the Admira-
 tion of every Body. The Lid of the left Eye
 continues still downwards a little, as does that
 Side of the Mouth, occasion'd by the great
 Weight depending on that Side of the Face;
 but it may be expected they may come again
 to their right Posture; for the Head at first
 after cutting, inclin'd much to that Side, by
 Reason of the said Weight, which being re-
 mov'd, it now begins to stand upright: Since
 he is perfectly recovered, though the Skin, and
 even a deal of the musculous Part of the Cheek
 and lower Jaw, was cut away, which is fill'd
 up with Flesh, and of the ordinary Colour of
 the Skin, like that of the other Side of the
 Face.

Face, so that Hair grows thereon, as on the other, which he ordinarily shaves, which is indeed as surprizing as any thing in the whole Affair.

Before I leave this Part of my Discourse, I shall observe to you two other Tumours belonging to the same Class, I mean the *Ganglion* and *Bronchocele*; the former seated usually on the *Tendinous* Parts of the Hands and Feet, as also upon the *Internodes* or Joints of the *Knee* and *Elbow*; the latter always upon the *Bronchus*, or *Astera Arteria*, whence the Name is taken a *Βρόγχος* & *κύλη*.

The former, which is usually owing to some Wrench or Bruise of the *Tendinous* Parts, is so manifestly a Disease thereof, that we need neither doubt of the Humour flowing from the distorted *Fibrillæ* of the same, nor of its Coat or *Capula* being furnished from the investing Membrane thereof expanded in the Place, and inclosing the diffused Juice coagulating underneath.

Upon which Account, where the same admits not of Resolving, it proves usually very troublesome, in Regard of its Affinity with the *Tendon*, underneath, and from which it can scarce safely be parted; or admit it should suppurate, it will prove difficult to heal, and apt to fill again, unless its Enclosure also be digested away with its contents, which is sometimes hazardous.

The Cure of the *Ganglion* has been diversely attempted, as by some powerful resolute discutient Application, such as we have before laid down for the other *encysted Tumours*; over which there will be required a strict Compression and suitable Bandage. For this Purpose, it has been customary to bind on a piece of Lead, beat

beat out exceeding thin, and to streighten the same as the Patient can bear it, with some Ribbon or other Ligature, the said Lead being first smear'd over with Quicksilver; others will have a Piece of Gold ordered in like Manner, and bound down upon the Part. The *Empl. de Ranis cum Mercurio* is directed by others, as also *de Cicuta cum Ammoniaco*, that with the *Empl. ex Ammoniaco* being what I have usually tried; also the Gum itself spread upon Leather, and bound on for some Time, insensibly disperseth, and scattereth these Tumours.

Johannes Agricola, as *Grulinius* remarks; *Cent. 2. p. 18, 19.* was wont to rub the Part strongly with the *Ol. Sulph. Ruland.* and then applying his *Empl. Diasulph.* after the same manner, he directs the *Ol. Scorpion. ac Laterit. cum Fol. Sedi maj. superimpositis & quotidie renovatis*, with which two Remedies, nay with the Leaves alone thus used, he affirms, he has cured above a hundred Persons thus diseased.

*Jacobus Meekeren** proposes the laying of the Hand, where the Disease is there seated, prone or flat upon a smooth Table, and supposing the Ganglion on the Back thereof, he directs it to be there fast held by an Assistant, whilst the Artist himself, with his Fist striking forcibly upon the Tumour, breaks the *Cystis*, and diffuses the Humour, after which he treats it as a simple Contusion.

But this Experiment I shall not encourage, by Reason of the Accidents that may ensue upon this rustical Usage, especially in some ill habited Pa-

* *Observ. Medic. Chyr. Cap. 63.*

tients ; besides the *Cystis* remaining, the Tumour may chance to fill again.

The last Remedy is Incision, when it will neither discuss nor suppurate, carefully dividing the Skin, and separating the adhering Fibres, to take out the whole ; or if it breaks, digesting out that glairy Matter contained, together with the Membrane that inwraps it : But here you must be sure to avoid all unctuous or greasy Applications, instead of which the *Liniment of Arceus*, with a little *Bals. Tereb.* as also the *Precipitate*, according as the Ulcer is more or less *sordid*, are most expedient.

Ambrose Parey mentions one of eight Pound Weight, cut from the Side of the Neck, as large as the Patient's Head, to which notwithstanding he gives the Name of *Lupia*.

Hollerius observes another of like Bigness taken from the Groin.

A Shop-keeper in my Neighbourhood, sending for me upon another Occasion, took this Opportunity, turning down his Stocking, to shew me his *Knee*, where just beneath the *Rotula*, there appear'd a *Ganglionide* Tumour, as large as a Turkey Egg, moveable every way, and transparent in a manner to the Candle on the opposite Side ; upon the Flexion of the Joint it felt very tense, and was somewhat painful, going up or down the Stairs, and stepping *alternatim*, or interchangeably with his Feet. It had been filling leisurely for seven Years, and growing still bigger and more troublesome, he was desirous (if I would have given way) to have it opened ; but considering its Situation, and well foreseeing the Trouble I might meet with, which he had no Apprehension of, I advised first of all, as he had done nothing yet for its removal, that we

HIS. xxiii.

might attempt its Diffipation by some proper Discutient, together with a laced *Knee-piece* well fitted, allowing a small Cavity to receive the Tumour therein, which was accordingly made, and worn for some time over an *Emplaster ex Ammoniaco*, incompassing the same, by which the whole Juncture was not only much strengthened, but renewing the Plaister once in ten Days, the *Tumour* gradually decreased, and after four Months Time entirely vanish'd out of Sight.

HIS. xxiv. Another I knew of the like Kind, who, after an accidental Fall upon the Part, burst the *Cystis*; and though for some Time after confin'd by the Fluxion, got rid of the *Ganglion*, and by wearing a *Knee-piece*, with a defensative *Emplaster* some Time after, was secured from a Relapse.

These Tumours seem to take Rise from some extravasated *Lymph*, or from the *mucilaginous* Liquor of the *Internodes* diffused, and forming itself a *Capsula* from the Membranes thereof, gradually increases and thickens into a jellyish Consistence.

The Bronchocele.

The *Bronchocele* is a Tumour situate upon the investing Membrane of the *Wind-pipe*, or betwixt that and the Muscles of the said Part, where it sometimes takes so large a Compass, as to extend itself from one *Jugular* to the other, lying high and prominent, like a *Hemisphere*, or half Globe, or at least of a *spheroide* Figure.

It takes its Rise commonly from loud *Crying*, *Coughing* and *Vomiting*; as also from a sudden Jerk, or hasty turn of the Neck, as I have been informed by some therewith affected.

It is called also *Hernia Bronchalis*; but if there be a Rupture in the Case, as that Name will imply, it is most likely to be that of some *lymphatic* Vessel, diffusing or shedding its Contents betwixt the Membranes of the *Aspera Arteria*, and the Muscles

Muscles incumbent, where being leisurely accumulated, it distends the containing Parts, and from the broken Fibres thereof, makes itself a Cover, which grows along with it, in like manner, as has been observed formerly of the other *capsulate* Tumours.

There are others, who derive its Origin from some nutritious Juice extravasate, and turning into a Flesh-like Substance; after the Manner of certain other *Sarcomata*, to be described presently; and indeed both these may be right, since we often find the Body thereof made up partly of a *fluid*, and partly of a more firm and *glandulous* Substance: But to proceed to the *Prognostic* and Cure thereof.

The *Bronchocele*, by Reason of its unhappy Situation among the large *Blood-vessels*, the *recurrent Nerves* and *Wind-pipe* itself therein concerned, at least its investing Tunicle, affords a very hazardous and uncertain Issue; and if it admit not of *Discussion*, there is little Encouragement to meddle farther: For if it *suppurates*, there is left commonly a very *sordid* and *sinuous* Ulcer, which since you can't dilate so conveniently as in other Parts might be done, nor have any Advantage by Rolling, which the same will not allow, you may be put upon risking your Patient's Life, or leave him in a Condition worse than you found him, with an incurable gleetng *Fistula* or *Dyssepulotic* Ulcer; so that if any Thing be done in order for the *Cure*; it ought always to be attempted first of all by some proper *Discutient*, as was proposed for the *Ganglion*. For this Use also serves the *Empl. Antimoniale* of Dr. Fuller, to be met with in his *Pharmacopæia extemp.* but indeed these Tumours are most commonly left to themselves; the great

O 2

Danger

Danger by Incision on account of their Situation, and the Difficulty of healing, when they come to *suppurate*, having very much discouraged their Undertaking; wherefore the much greater Number now content themselves without any *Chirurgery*, when apprized of their stubborn Nature, and the Uncertainty of Success.

'Tis much more rare to find these Tumours in the Necks of Men than Women, or at leastwise being less obvious to Sight, they pass unheeded, and we are not so often consulted about them. I am sure, to one that I have observed in our Sex, I have met with half a Dozen on the Throats of Women.

HIS. XXV.

A Country Woman, after a violent Fit of Coughing, to discharge somewhat fallen down upon the *Larynx*, perceived instantly a Swelling on the Outside of the same, which gradually enlarging, after few Years, encompassed all the Forepart of her Neck, taking in both the *Jugular Veins*.

Thus terrified by perceiving it still farther to encrease, she was advised by some of the superstitious Neighbours, to have it stroaked *nine Times*, (for less could not have done the Feat) by the Hand of a Person strangled under the *Gallows*; for which End she made a Journey of fifty Miles to *London*, and as Opportunity gave leave, tried the Experiment; but finding no Benefit hereby, after her Return, a bold *Empiric* coming into those Parts of the Country, had promised he could empty the Swelling, by thrusting in of a *Thorn*, assuring her, there was nothing in it but Wind he would let out, which she gave way to, and he thrust the same in on each Side, into the Body thereof.

But the *membranous* and *nervous* Parts being farther irritated hereby, and nothing but Blood
or

Sect. III. Of Encysted Tumours.

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or Serum deeply tinged therewith discharg'd, a Fluxion arose upon the Outside, which soon after inflaming, was by some other Undertaker mistaken for a common *Abscess* or *Apostem*, and accordingly opened, when meeting only with a fleshy Substance, after a great Quantity of Blood had run out, he attempted to waste the same by *Escharotics*, of what Kind I know not, but still attended with more Pain, large *Gleets* exhausted her Strength, and being brought hereby very low and weak, the Ulcer spreading, she made a second Journey to *London*, and consulted me, as she had been advised.

I found a large Plaister on the Outside, which by its glittering Particles, seem'd to be the crude *Antimony* powder'd, and incorporated with some Plaister, then taking out many large Dofils and Pledgets, found an Ulcer, which might be truly named *κακότης*, crude, fetid, and putrid at the Bottom, with callous pouting Lips all round about.

Upon which, seeing little Prospect of serving her otherwise than by my Endeavours to palliate so enraged now, and stubborn a Malady, and she expecting a Cure, I declined meddling therewith, and made way for one, to whom she applied afterwards, and who undertook it. Some Months past, I understood by a Relation she had in Town, who first brought her to me, that the Ulcer, in Spight of all Endeavours spreading, eating deeper, and I am inclined to believe, proving at last cancerous by rough Usage, one Night upon a Fit of Coughing, the external *carotid* Artery burst, and she sunk in a few Minutes after.

That the Nature of this Tumour may be the better apprehended, I will here transfer an Account thereof, presented by the ingenious Dr. *Douglass* to the *Royal Society*, in these Words.

HIS. XXVI. ' I had lately (saith he) the Opportunity of
 ' opening a Woman about fifty Years old, who
 ' had a very large Tumour or hard Swelling in
 ' the forepart of the Neck, possessing all the Space
 ' between the whole Extent of the lower Jaw,
 ' and the upper Part of the *Sternum*, with a considerable rising in its middle, laterally its Point
 ' inclining to the left Side, though the biggest
 ' Part of the Tumour was on the right. The
 ' Skin on the *Apex* of this protuberating Part was
 ' thin and shrivell'd, of a Colour different from
 ' the rest, and look'd as if the Swelling would
 ' have broke in that Place.

6 ' The Skin was exceeding thin, having no
 ' Fat under it, only in a Cavity between two
 ' Lobes, to be afterwards described; on its right
 ' Side, there was a small Appearance of some, for
 ' the Skin being less stretch'd there, the Cells of
 ' the *Membrana adiposa* were not quite emptied.
 ' The fleshy Fibres of the *latissimus Colli* were
 ' scarcely visible, the *Mastoidæus* and *Coracobyo-*
 ' *dæus* were extremely thin, and in their Ascent
 ' they adhered very firm to the subjacent Tumour.
 ' The *Sternobyoideus* and the *Sternothyroideus*
 ' that run up the Forepart of this Swelling, were
 ' distended so thin, that it was difficult to separate them from it, especially the last named.
 ' The right *carotid* Artery in its Ascent to the
 ' Head, ran along the outer Edge, which encircling, did much obstruct the Current of the
 ' Blood that way. The internal *Jugular*, the
 ' *Par Vagum*, and the *intercostal* Pair, went also
 ' over some Part of this Swelling, in their De-

scend

‘ sent to the *Thorax*; two of the lymphatic
 ‘ Glands of the *Jugular* Vein were swell’d to the
 ‘ Bigness of little Eggs, being placed at some
 ‘ Distance one from the other, with a Hollow
 ‘ between, where some Fat was found; these two
 ‘ Lobes made the Tumour very uneven also on
 ‘ its right Side.

‘ These Muscles, the *Jugular* with the Glands
 ‘ adhering to it, and the rest of the forenamed
 ‘ Vessels being removed on both Sides, I could
 ‘ easily observe the Bigness, the Figure and the
 ‘ Circumscription or Limits of this preternatu-
 ‘ ral Tumour, with all its Adhesions to the ad-
 ‘ jacent Parts. In Magnitude it seemed to ex-
 ‘ ceed that of two Fists joined together, its Fi-
 ‘ gure was almost triangular, with a broad Basis
 ‘ under the Chin, sloping a little on each Side;
 ‘ as it descended to the upper Part of the *Ster-*
 ‘ *num*, where its Point was pretty narrow; its
 ‘ Surface was made uneven by three Risings, of
 ‘ which the largest was turned to the left Side,
 ‘ the other being placed on the right, as above
 ‘ remark’d. It adhered by membranous Fila-
 ‘ ments to the *maxillary* Glands, to the *digastric*
 ‘ Muscle, and to the *Stylohyoidæus*, under which
 ‘ on the right Side, a small Portion of it in the
 ‘ Form of a Nipple, did intrude itself, as it
 ‘ were, under the Tongue; in the upper and
 ‘ forepart it also adhered to the *Os Hyoides*.

‘ Laterally it was connected to the *Levator*
 ‘ *Scapulæ*, and lower down to that Part of the
 ‘ *Cucullaris*, that terminates in the *Clavicles*
 ‘ backwards, to all the forepart of the *Aspera*
 ‘ *Arteria*, between its third and fourth cartila-
 ‘ ginous Rings, and the *Os Pectoris*, as also to
 ‘ that Muscle of the Head called *Rectus internus*
 ‘ *major*, and to some Part of the *Scaleni*; its

' lower Part was engaged under the *Jugulum*,
 ' or lunated Part of the Breast-Bone to which
 ' it adhered. It was easily freed from its Con-
 ' nections to all these different Parts, but not so
 ' from the *Glandulæ Thuroidææ*, to which it ad-
 ' her'd after a far different Manner; for where
 ' the *Thuroidal* Glands are joined to one another,
 ' a little below the *Cartilago Cricoides*, on the
 ' forepart of the rough Artery, there was no
 ' separating of it without cutting its Substance;
 ' whence it plainly appears, that the Union of
 ' these *Glands* was the Root or Beginning of this
 ' Tumour; and yet, which is very remarkable,
 ' the *Glands* themselves kept their usual Figure,
 ' and were no larger than ordinary.

' This Tumour was hard and very firm, be-
 ' ing exactly of the Consistence of a Cow's Ud-
 ' der when boiled; yet in a few Places it was
 ' softish, containing a liquid and thick Juice.
 ' Its Colour was chiefly of a whitish yellow,
 ' only in some Places it was exceeding red, from
 ' its having a greater Store of Blood Vessels, and
 ' in others it was very white. I pared off all
 ' the soft Part, and the hard Substance that re-
 ' main'd I boil'd, and then clear'd it very well,
 ' having left sticking to it at one Corner, a soft
 ' cartilaginous Body, which, possibly, had the
 ' Patient lived longer, would have required the
 ' same Degree of Induration. It very much re-
 ' sembles a Piece of white unpolish'd Rock Co-
 ' ral; but whether it may be reckon'd *osseous*, or
 ' if it be rather the viscid Humour of the Glands,
 ' harden'd and concreted into this irregular, chal-
 ' ky or gravelly Substance, or whatever else it
 ' may be, I leave to better Judgments.

' The first Appearance of this large Swelling
 ' was about thirty Years ago, caused by the
 ' breaking

breaking of a Vein, as the good Woman used to express it, in a hard and very difficult Labour. It increased very slowly, not arriving to any considerable Bulk, till a few Years before she died: It was never very painful, being a true *Scirrhus*: Many Things by several Persons had been used, and applied unsuccessfully: Its Bigness at length became very troublesome, in impeding her Swallowing and free Breathing, and at last it quite choaked her, by compressing the Wind-Pipe upon which it lay.

Of the SARCOMATOUS, or fleshy TUMOUR.

Having dispatched the *encysted*, the next of the *Of the* *chronical* Tumours I shall observe, is the *Sarcoma*, *Sarcoma*. being defined *a fleshy Tumour, arising in any Part of the Body, from some Effusion of the nutritive Juices out of their Tubuli, as happens in Contusions and by some other Accidents.* This Tumour being certainly made up of the same Materials, and having the like manner of Accretion with that of other Parts, but with this Difference only, that the latter is restrained by the Course of the Vessels, to some certain Figure and equal or regular Dimensions, whilst the former is *inform*, and under no certain Restriction or Limitation.

For when this precious Liquor, by Reason of some Obstacle, is perverted from its primary Use or Office of nourishing some certain Parts, rather than lie unactive, busy *Nature* will be still forming something thereof, however rude or unshap'd, as well as useless it may prove.

The

The same *Lusus* or Aberration is daily seen in Plants, with the like Excursions of their *Sap*, analogous to the Blood of Animals, when by some Accident of Let or Stop in its more regular progressive Motion, it is forced to deviate or turn aside out of its Channels.

A Digression concerning the Analogy between Plants and Animals.

And truly, whoever strictly surveys the animal and vegetable Bodies, may find a greater and nearer Resemblance than at first they might imagine; so great indeed, that the ingenious botanic Anatomist, Dr. Grew, tells us, that what the Viscera are in Animals, the Vessels themselves are in Plants: That is to say, as the one are Vessels conglomerated, so the Vessels of the other are Viscera extended or drawn out in Length. But to carry this Similitude a little farther other ways, if we look to the outer Teguments, has not the Plant its double Skin or Cover, as well as the Animal? If more inward, has it not its parenchymatous, as well as fibrous Substance, together with its Medullary the Pith in its Centre? in which the Succus Nutritius, like that of the Nerves, after many Percolations is refin'd, and being arrived at its utmost Purity, here reserv'd, like that deposited in the Glandules of the Brain, for the most noble Uses? Has it not its proper Vessels, in which, as the Blood of Animals, in their arterious and venous Channels, its Juices are duly circulated; its Air-vessels for Respiration, its Lymphatics and Laeteals, (for such like are the Gum, and resiniferous Vessels) and consequently their Parts suitable to our Glands, wherein these Juices are secreted, before conveyed into their said Pipes or Passages.

No Wonder then that Plants, as Animals, should have their States of Sickness, as of Health, that half Palsies, and sometimes a total Deprivation

vation or Extinction of the vegetable Life should instantly befall them: What else is the *Blight*, which in one Night's Time entirely kills the one Side of a flourishing young Tree, but a Sort of *Hemiplegia*? Or what is that, which by a Flash of Lightning or a Clap of Thunder instantly destroys the whole Plant, unless a Sort of *Apoplexy*? But leaving the *internal*, let us come to the *external* Maladies; and here we find them with our selves, as liable to *Wounds*, *Contusions*, *Fractures*, *Ulcers*, *Cancers*, *Gangrene*, and *Mortification*. Lastly, which gave rise to this Deviation, do we not daily see, that by Impediment some way given to their nutritious Juice, taking into their accustomed Tracts in a right Line, they oftentimes deflect, *Qua datur Porta*, to the Sides, where wanton Nature, from the said luxuriant Juice, forms diverse *Excrescencies*, as in the *animate Species* is to be observed.

Thus, what are the lesser *Tubercula*, projecting up and down the *Cortex*, but so many *Warts* and *Corns*? What the larger indurated Knots thereon, but as many *Nodes* or *Scirrhi*? What the softer Extuberations, but as many *Sarcomata*? The *gummy Exudations*, but a Sort of *Sinovia*, or *nervous Gleet*? Not to mention the *fungous Adnascencies* observed in some of the vegetable Kingdom, such as the *Agaricus Laricis*, the *Viscus* and *Gallæ Quercus*, with others, wherein the ludicrous Sports of Nature, with her *Superfetations*, are conspicuous; but asking Pardon for this Digression, we return to our Subject.

The *Sarcoma* is distinguished from the Tumours last observed, in that it has no *Cystis*, or proper containing *Capsula* like those, nor is it moveable as they are; neither yet does it give

Difference
between
the Sarcoma,
and
other Tumours,
with the
way Cure.

way as the rest to any Pressure, having no Cavity, but is firm, compact, and more solid.

As to the *Cure*, whoever reflects upon the Nature and Matter of this Tumour, will easily apprehend it is to no Purpose to expect it should either be *repelled* or *discovered*, and as little to hope for *Suppuration*; since it is made up of Flesh itself or the extravasate *nutritious* Juice here carnified, and turned to a solid Substance; and if the *Base* or Foundation thereof be not small enough to allow of the *Ligature*, as has been said of some of the other Tumours last recited, it can be no otherwise removed than by Knife or Fire, either *actual*, or *potential*: By the first, I mean the *hot Iron*; by the latter, the *Escharotic*, or *Caustic* Application.

It may indeed so happen, as to want all three, not only to stay the *Hæmorrhage*, or Flux of Blood, but to eradicate and consume the *Base*, which being done, and the Wound digested, you are to incarn, if there be Occasion, or otherwise to dry up the Remains into a *Cicatrix*, as shall be hereafter directed.

ACaution. But before you enterprize any of these Operations, you are thoroughly to examine the Nature of the fleshy Body you are about to eradicate, either of these Ways: Thus, *when of a mild Appearance, soft and tractable, of the natural Colour or kindly Aspect, attended with little Pain, situate free from the larger, or fed only by some capillary Blood-vessels, clear also of the Nerves and Tendons, in a good Habit of Body, and a governable Patient, there will be greater Encouragement.* On the contrary, *when hard, livid, unequal, painful, seated on the Joints, or among the tendinous Parts, nourished by some large Artery, the Bo-*

casobymial, and the Sick unruly, 'tis better not meddle therewith.

Farthermore observe in all Operations of this kind, and indeed in many others, tho' seeming of less Moment, it will be requisite that the Patient's Body should be prepared three or four days before, by *Phlebotomy*, *Clysters*, or lenient Purgation; as also an abstemious Diet, which latter ought to be continued through the whole course of the Cure, to prevent a Fever with the consequent Smptoms; and this shall suffice for a *Prognostic* as well as *Cure*. However, I shall further enlarge to inform you, that the *Nostril* is a Part remarkable for a certain *Species* of this disease, which, when arising in the Nature of common *Fungus*, or *Hypersarcosis*, or stopping some Part of the Passage, is properly enough denominated a *Sarcoma*; but when sprouting in the uppermost Part thereof, from several fibrous roots, and gradually enlarging as well forwards to the *Alæ Nasi*, as backwards behind the *Uvula*, is termed *Polypus*, from its supposed Likeness Polypus.

a Fish of that Name. They have both the like Manner of Growth, with other fungous excrescencies, being as spongy oftentimes, as those about a *Fontanel* in some lax and over moist Habits, through the constant Humidity, particularly in this Place, which is a Sort of *Emunc-*ry or sink to the Brain, and constantly receives the dripping *Serum* or *Mucus*, separated by the Glandules thereof.

The former often riseth from some Ulceration, crusty Scab therein pick'd off, or hastily remov'd, by which the Parts being made raw and bloody, this spongy Flesh ariseth; the latter seems to pullulate from some capillary Artery, terminating in the investing Membrane on the

Inside

Inside of the Nostril, some way distorted; or its Liquor by some Let obstructed in its Return, here carnifying and gradually increasing, divaricates as well downwards, and appears in the Inside of the Nostril, as with its fibrous Shoots above; where, as before observed, some Parts thereof are discoverable behind the *Os Palati*; whence, as well as forwards, they are often extracted together with their Roots.

The *Sarcoma* or *Fungus* stopping up the Passage of the Nostril, may be first attempted with the stronger Restringents, blown up with a Quill, or conveyed with an Instrument to the Part. Such as the *Pulvis Gallarum immat. Cort. Granat. Flor. Balauſt. Sumach. Hypocist.* or these proving insufficient, a *Catheretic* may be admixed, as the *Calcant. Alumen, Vitriolum*, also the *Merc. Precipit. rubr.* And after the *Fungus* is hereby wasted, for *deterging* and drying up the same, you may dress as has been directed for the *Ozena* or Ulcer in these Parts, observ'd among the *strumous Symptoms*.

The *Polypus* may be set upon after the like manner, but if seated kindly for the Work, appearing *mild, not black, livid, hard, or painful* as remark'd before; but *soft, pale, or reddish, indolent and well-conditioned*, the best Way is by the *Forceps* for that use invented, to extract it whole with its Branches, as but now observed.

Note, that in conveying your *catheretic* or *caustic* Medicines to the *Fungus* itself, you carefully avoid, as much as possible, touching any of the sound Parts round about: Wherefore the *Alum* or *Vitriol* Stones, or the *lunar Caustic*, being fixed in a Quill, are usually and conveniently enough thrust up against the *Sarcoma* or fleshy Body, and held there for a few Minutes; or the

End of a Probe dipt in the *Butter of Antimony*, may be conveyed to the same, which being removed after some little Time, in case of Pain, warm Milk, or Barley Water may be injected, to demulse and assuage the same, and take off, or prevent any Inflammation thence arising.

Benivenius, after the Evacuation aforesaid by bleeding and Purging, having cleansed the Nostril from its *Mucus*, puts up a Tent arm'd with Mixture *ex Cerussa & Litbargiro*, made of the Consistence of Honey, *cum Ol. Myrtil. ac Ombac.* after which the Crust casting off, he excorates the Parts with others, prepared *ex Cerussa, Cadmia, Olibano, Siliqua parte interiore diligenter attritis, cum Melle addito*, by which used three or four Times a Day, he removed this Complaint in a Woman, whose Case had baffled many other Practitioners.

A young Gentlewoman having long Time HIST. complained of a Stoppage in her Nostrils, occa- xxvii. sioning a great Alteration in her Voice, sent to a Surgeon near at Hand, who looking up the same, discovered a *Polypus*, the Branch on the left Side appearing much lower than that on the right. He began her Cure with desiccative Applications, but finding little Riddance thereby, put up a Piece of Vitriol in a Quill, and rub'd the Excrescence frequently therewith: This neither availing, he conveyed up a Bit of a *lunar caustic*, when the Patient growing unruly a Fluxion arising from the Pain, and the Parts round about excoriated on the inward Membrane, he consulted me, who after a View of the Nostril, coming to examine the backward Part of the *Fauces*, which had hitherto been overlook'd, perceived a flabby pendulous Body hanging down, which I would then have extracted that way,

way, not doubting to free her from her Complaint without more to do; but terrified at the Thought of an Instrument, she chose rather to dispense with the Disturbance, than thus easily to be relieved thereof; upon which I left her.

Some Months after this, drawing her Breath strongly through the Nose, as in hawking out of Phlegm thereby into the Mouth through the backward Passage, she was suddenly choak'd or strangled, lying in a Fit; being hastily called to her, and forcing open her Mouth, I perceived with my Finger some clotted Blood therein, and feeling farther backwards, drew forth there-with the *Polypus*, which being loosned from its fibrous Ties in the foresaid Motion, was slipped down upon the *Glottis*; when instantly recovering her Breath, she snufft up a little *Oxycrate*, till a strong Tincture of Roses was provided, and immediately after this was freed of her Complaint.

The *Sarcoma* weighed almost an Ounce, resembling in its hind Parts those of a Frog upon the squat, with the four Legs or fleshy Appendages, which divaricated into each Nostril; being put into a Phial of Spirits, she kept it to shew her Acquaintance, as somewhat monstrous.

The Original of this Disease, as given in to the *Royal Society* by Mr. *Giles*, I find thus delivered.

HIST.
xxviii.

‘ In June, saith he, 1684, I was called to a
‘ Patient who had a *Polypus* in the right Nostril
‘ which I drew forth without Pain or any bad
‘ Accident; but after this Extraction, she still
‘ felt some Trouble in her Nose, and Moisture
‘ did pass with Difficulty from the same to the
‘ Throat. This engaged me, seeing no more in

the Nostril to look into the Mouth, where I perceived, behind the *Uvula*, a strange Body of the Bigness of half a Nut, which I judged to be a Portion of the same *Polypus*, and being encouraged by the Advice of Mr. *Fede* and Mr. *Vary*, I pull'd it out in their Presence: We found it of an extraordinary Shape, the Piece by which I laid hold of it was somewhat hard, and of a dark brown: It was fastned by two Branches, which seemed to have taken their Shape in the Nose, being each as large as a sweet Almond, but their Substance softer and whiter; it had also a little red Stalk of the Bigness of a Cherry Stalk. There was not a Drop of Blood spilt, nor did the Patient feel any Pain in the Operation, all Trouble being removed.

At the End of two Years the Patient died of a malignant Fever; and forasmuch as some Time before her Death she complained of new Trouble upon this Part, we obtained leave to open the Organ. After we had broke the Bone, we found nothing in all the Nose, but a little Piece of Flesh very soft, which came out of a Cleft of the *Processus Pterigoides*; we followed it exactly, which brought us into the *Sinus* of the upper Jaw; we broke this Bone also, and perceived in this *Sinus*, a roapy and clear Humour, in the middle of which there was a Body like, in Figure, Consistence and Colour, to a greater one, which we had before taken out; we took Notice also of a little red Speck, which seemed to be the Root of this *Polypus*.

Immediately under this Gentleman's Remarks, in the Abridgment of the Transactions, stand the following from an unknown Hand.

• The *Polypus*'s are spongy Excreescences, which
 • according to Authors, are form'd upon the
 • Membrane that covers the Nose within, by
 • some Alteration made there. Some are form'd
 • also in other Parts (as in the Cavities of the
 • Blood-vessels) but this Membrane is more dis-
 • pos'd to the Production of them than others,
 • because the most spongy of the whole Body,
 • and full of Blood-vessels. When these Excref-
 • cences appear very red and turgid with Blood,
 • the Extirpation of them is very dangerous, for
 • fear of *Hæmorrhage*.

Leaving these, we come to another fleshy Ex-
 creescence, more particularly affecting the Gums,
 call'd *Epulis*, and arising at some times out of the
Alveoli or Sockets of the Teeth, overspreading
 several of the same. In the Extirpation where-
 of, it will behove you rightly to inform yourself,
 whether there be not any malign or cancerous
 Disposition therein, that being arm'd, you may
 make your *Prognostic* accordingly, and leave it;
 or otherwise finding it of a mild and kindly Na-
 ture, like the common *Fungus*, if the Base will
 admit, you may make Ligature thereon, destroy-
 ing the Root by some *catheretic* Medicine;
 otherwise consuming the same by *Cautery*, *actual*
 or *potential*, of which you will find Examples in
Bayrus, Lib. 6. Ch. 16. *Placentinus Chir.* Lib. 1.
 Ch. 20. *Hollerius Obs.* 26. and *Parey* Lib. 7.
 Ch. 4.

The *Tonsillæ* that are *sarcomatous*, we describ-
 ed among the *Species* of the *Strumæ*, so that
 giving you one Instance of a large *Sarcoma* I cut
 off many Years ago, I shall conclude my Dis-
 course of the *fleshy*, and proceed to the *watery*
Tumours.

A poor Man, who had been used to carry ^{HIS.XXIX.} great Burthens for his Livelihood as a *Porter*, began to observe much Uneasiness upon the back or hinder Part of one of his Shoulders; but overlooking it some time, till his Knot was thereby ready to be thrown upon one Side, he at last took Advice of several, who endeavoured to disperse the Swelling with *Ointments* and *Plaisters* of divers Sorts; but notwithstanding all they could do, it still improved and grew larger, so that he was forced to lay aside his *Knot*, and to undertake nothing but what he could carry in his Arms or upon his Head.

After several Years that he had been thus afflicted, he consulted me; I found a Swelling as big as a Penny Loaf, which at first I took for one of the *encysted*, *steatomatous*, or *gypseous* Tumours; but upon stricter Search, finding it more solid and compact, and fix'd upon the superior *supra-scapulary* Muscle, extending towards the *Acromium* one way, and within as small a Space of the *Vertebræ Colli ac Thoracis*, on the other, feeling solid and fleshy, I concluded it a *Sarcoma*, arising first of all very probably by Contusion; whence, from some broken or distorted *Tubuli*, the nutritious Juice was spilt and effused, which gradually enlarging by a fresh Supply of the same, or fed by the capillary Vessels growing up with it, it was arrived at its present State, and by a farther Extension of the outward Teguments, seemed likely to improve to a much larger Bulk; so that I made no Scruple to deliver my Opinion peremptorily, that *Excision* was the only Remedy, and that it was, so far as I could apprehend, safely enough situate for the Operation.

Upon which, having some good Friends concerned about his Cure, I prepared his Body by *Bleeding, lenient Purgation, and two Days regular and more abstemious living than at other Times*: When one Morning being provided of my *Apparatus, (Buttons of Lint rolled up hard, which being armed with restraining Powders, were to be clapt up close to the Mouths of the Vessels, large Pledgets of the same, stiptic Powders ex Vitriolo Romano, Chalcanto, Alumine, Bolo, also a Phial of the Aq. Stiptica, ex Phlegmate Vitrioli cum Ol. ejusdem Præp. actual Cauteries in a Chafing-dish of lighted Charcoal just at Hand, a Bason of Oxycrate, cum alb. Ovor. a Plate of Farina Volatilis, Compresses of Tow and Cloth, and a two-headed Roller with Scapulary)* setting the Patient on a Stool with his Back to the Window, and an Assistant on each Side of him, I began by passing a couple of Needles strung for the Use, like those employed for excising the Breast, crossways through the Body of the *Tumour*, which entered not but with some Force, and seemed to pass as through a kind of grisly Substance very little sensible; when taking up the four Tails of the Silk in my left, with my Knife in my right Hand, I cut from the upper Part downwards, keeping as close to the Basis all the way as I could, till I had brought away this preternatural Body; upon which two arterial Branches spurted out, and when I had suffered them to empty a little while, I singed with a little Button Caутery for Security, and presently restrained the same; the rest of the Wound I cover'd with the larger Pledgets, sprinkled with Bole, over which a Pad of Tow dip'd in the *Oxycrate*, and strew'd thick with the *Farina*; after that the Cloth-Compress with more of the same, and lastly,

lastly, the Bandage, each Head thereof decussating under the Arms, or passing one End on one Side, whilst the other was brought to the opposite; then taking several circular Turns round the upper Part of the Chest, and fixing the *Scapular* as a farther Security, I finished my Dressings for the first Time, and put him into his Bed.

Two Days after I loosened the same, and covered the Wound at this second, with a large Pledget armed with that common Digestive, *ex Terebinth. cum Ovi Vitello*, dipt first into a warm Mixture, *ex Linim. Arcaei, cum tantillo Ol. Terebinth.* Thus in few Dressings, the Wound being digested, the Gleet ceasing, and the symptomatic Fever gone off, observing some Inequalities in the Ulcer, I sprinkled the same thick with the *Precipitate*, and continued the Digestive some Time longer, but the Flesh being of an uncommon Hardness, would not give way thereto; wherefore strewing on the *Calx viva*, I laid over a Pledget of Liniment only; but notwithstanding this or the prepar'd Lint, the *Vitriol* or *Alum-Stones*, this horny Substance would not be levell'd in some Part of the Edges, where the Knife had not gone deep enough, as also in two Places near the Centre; wherefore having first tried the *lunar Caustic*, and the *Butter of Antimony*, and finding them too slow in their Effect also, all Things considered, more painful, I prevail'd for a Touch or two with a flat Cautery upon these little Hillocks, having two of them got ready for that End, which I used *alternatim*, and took down those callous Inequalities, the Patient suffering it with great Resolution, and very little Complaint, though the Trial, I think, carried much more of Terror than Torture, this

Flesh having so few of the nervous Filaments interwoven in its Texture, must needs render it less sensible both to the Knife and Fire, as I observ'd it was to the Needles passing through at first.

These new *Eschars* were treated like other *Cambustions*, with Pledgets first arm'd, then dipt in the warm *Basilicon*, mixed with a little *Liment* run down along with it, together with a few Drops of the *Ol. Tereb.* whereby separating, and the Surface now smoothed, to prevent its repullulating, I left off the Digestive, and lightly strew'd on the *Calx viva* for the more strongly desiccating the Flesh, and bringing on a *Cicatrix*, which after three Months was firmly accomplished by the fine Powder of *Lapis Calamin.* dry Lint, and sometimes a Touch round the Edges, with the *Lapis Cælestis*, or *Vitriol. Stone*, with an external or superficial Pledget of my *Cerat. de Lap. Calam.* since which he has remain'd well, though he could never be persuaded after to carry Burthens upon either Shoulder.

H^{is}. xxx.

A Case of some Resemblance to this, tho' more unhappily situate, and much more rebellious through its malign Quality, I had a View of near the same Time, on a Gentleman who came to Town, and took a Lodging at an Inn within *Bishopsgate*; the Tumour stretching itself from the upper *Spine* of the *Omoplate*, or *Scapula* behind to the Top of the *Humerus*, and thence overspreading Part of the *Deltoides* Muscle. It was taken off by Mr. *Charles Barnard*, but the Ulcer proving stubborn, and shewing after its *cancerous* Disposition, threw out large *Fungi* which neither submitting to the *Escharotic*, nor to the *Cautery* itself, in the midst of great Anguish, *Hæmorrhage* and *Gleet*, together with a great

great Expence of Spirits; these latter being exhausted, and the Tragedy at last falling upon the *nervous System*, the unfortunate Patient, notwithstanding all that Art could do, sunk under the Disease.

This kind of Tumour seated thus between the Shoulders, or upon the Back, is by the ancient Writers called *Natta*, being made up as often *Natta*. of a *Fat-like*, or *suety*, as of a *Flesh-like* Matter, whence by others it is reckoned among the *Steatomata*.

One of the largest of these that I remember to have seen, which covered in a Manner both the Shoulders, bunching out like an half Peck Loaf, having been first of all attempted by an ignorant, but bold Woman, with an *Escharotic* of the *Sublimatus Corrosivus*, mix'd up with some Ointment and spread Plaister-wise, all over the *Superficies* thereof, by which such horrid Pain, Convulsion, expensive Gleets, and other febrile and nervous Symptoms were hastned, as had brought the poor Patient (before a robust Man) into the most imminent Danger of his Life; which, after some Days palliating and recruiting, was in like Manner with the former, taken off by that ingenious and fair Practitioner, Mr. *William Petty* of *Fenchurch-Street*, a Gentleman, who has all the Qualifications of an honest and able Artist to recommend him. His. xxxi.

The remaining Tumours we proposed to take Notice of, as belonging to the *Chronical*, are the *aqueous* and *flatulent*; of the first Sort, by the Surgeons are usually reckoned the three following, *Hydrocephalus*, *Anasarca*, and *Hydrocele*.

There are indeed other Tumours from Water, as the *Hydrops Pectoris & Abdominis*, which

last is usually called *Ascites*; but these particularly fall under the Care of the Physician, and so truly does the *Anasarca*, though when complicate with *Ulceration*, *Gangrene*, and *Mortification*, the Surgeon is to be consulted: However, overlooking the two last, we shall speak to the three first, and begin with a short Account

Of the HYDROCEPHALUS.

Hydrocephalus, its Cause.

This, as the Name implies, is a watery Tumour of the Head, either seated on the Outside of the *Cranium* or within, although this latter should, I think, be named *Hydrops Cerebri*, vel *Hydrops Membranarum Cerebri*: But it is the external Tumour that we intend in this Place, which we define a *dropfical or watery Swelling of the hairy Scalp, or between that and the Pericranium*; the Cause of which may be ascribed either to a Redundancy of serous Humour in the Blood, ousting forth its capillary Vessels, or to a Diffusion of the same from some Contusion or Distortion thereof, as by Blow or Fall, as also by Compression of this Part in Child-Birth, whence the Freedom of Circulation being impeded, the serous Humour gleans all round, and raiseth this pappy Swelling. How far a too great Stricture of the Pores in the Skin of this Part may, at some Times, by inhibiting the Perspiration, farther thicken the Scalp, the Part here chiefly affected, I cannot say; but a Want of Heat in the same, as lying betwixt the Bone, its Membrane, and outward Tegument the Skin, will, doubtless, retard the Dissipation thereof.

This

This Tumour is distinguished from Oedema, by its deeper Pits or Impressions, and their somewhat longer Continuance after the removed Impress, being rather an *Anasarca* of the Scalp or Skin of the Head; and thus far of the Description and Cause.

For the *Prognostic*, the *Hydrocephalus* may be *Prognostic*. accounted more or less dangerous according to its Situation; and thus, if it lie only between the Skin and the Skull, there is less Danger; if between that and the Dura Mater, more; and still greater, if the Brain itself be deluged by the serous Humours distending its Ventricles and whole Substance, as appears oftentimes upon Dissection.

Again, the Danger is geater, where the Tumour ariseth from some Cause internal, such as the Weakness of the Blood itself, some Rupture of the Lymphatics, or over Laxity of the Vessels, than when occasion'd by Contusion or outward Compressi-on: Lastly, there is more, where the Distemper is complicate with a Dropsy of the other Parts, than when it is a Disease only of this.

In order to the Cure of the *Hydrocephalus*, *Cure*. much the same Method is to be taken, as was directed for the *Ædema*; although some will not allow the Stupes wrung out of the Fomentation to be applied so hot by reason of the Nearness of the Brain, and its Membranes.

But when by these Means some Part of the Water is raised into Vapour, and discussed thro' the Pores, the Remains may be dried up by the restraining *Fotus* and *Cataplasma* directed for that Tumour; and where the Distemper increases, or gives not way to this Method, the Scalp must be prick'd and scarified with a Lancet in sundry Places, by which, as out of so many small Ri-

vulets,

vulets, the Water may distil or drip forth; after which foment with your *Discutients* as before; or mixed together with *Restringents*, that may keep open the Pores and dry up the Remains, which at the Close must be still more stiptic and corroborative, to invigorate the Fibres, and shut up the Mouths of the weeping Vessels, that their farther Effusion may be prohibited thereby.

During this, a strict *drying Diet* must be prescribed, such as was observed for the other cold and *phlegmatic Tumours*; gentle *Hydragogues* being given at proper Intervals, such as the *Rad. Jalapii*, or its Rosin, with a few Grains of *Calomelanos*; if the Infant be very young (and such usually are the Subjects of this Disease) the *Syr. Ros. Sol.* or that *de Cichor. cum Rheo*, may suffice; whilst, for farther Derivation of the Humour, *Vesicatories* may be applied to the Neck and behind the Ears, and continued for some Days, Weeks, or Months, like those we call *perpetual*; also a *Fontanel* in *Nucha*, so soon as the Child is born with this Infirmary, or where the same is feared; for such by reason of their weak Heat, and greater Humidity, are most liable to the Disease: These, I say, are both conducive to the Cure, as well as a Preservative against Relapse; and truly tho' an *Epispastic* on the whole *Scalp* seems too severe a Remedy for that tender Age, yet I have found a couple of small ones behind the Ears, kept open as above, both very tolerable, as well as serviceable, in the like Cases. And here give me leave to acquaint you, that having applied the common *Epispastic*, of what Magnitude you think proper, and thereby raised a *Blister*, you may keep the little Mouths of the Vessels constantly weeping and discharging their Humour, by slightly smearing over the common

Melilot

Sect. III. Of the Hydrocephalus.

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Melilot or other Plaister, such as *de Minio*, *Diapalma*, or *Diachylon simplex*, with this following Liniment.

℞ Unguent. *Basilic. vel Aurei vel Nigri* ℥j. *Can-* The perpe-
tharidum in subtilissimum pulverem redactarum ℥ij. tual Blif-
Ol. Olivar. q. s. ut exinde liquefactis, f. Litus ad ter.
usum supra præscriptum.

The *Liniment* may be made either stronger, or weaker, by adding to, or diminishing from, the Quantity of the *Cantharides*; for as the *Texture* of the Skin differs in divers Subjects, not only in Regard to the Structure of the *sudoriferous Glands*, the *Sweat-vessels* and the *Excretory-Ducts* thence arising, but also in its *reticular Compages* of *Arteries*, *Veins*, *Nerves*, and *lymphatic Vessels*, here admirably interwoven, so can there be consequently no exact Standard fitted, or prepared to suit with all.

The same *Stimulus*, which will overhaul and vellicate, nay prove in a Manner *septic*, and induce a Slough on some tender Skins, will scarce twitch the more robust *Fibrillæ* of others, at least not sufficient to make them spew out their Contents; not to mention the different Degree of Viscidity in the *Serum* or *Lymph* itself secerned, which with more or less Difficulty is to be discharged.

Placentinus directs an Ointment prepared *ex* ℥j. *Flor. Sulph. & iv. Ol. Chamæmel.* by which he recovered an Infant labouring with this Disease, ordering however at the same Time, for the better Discharge of the *Serosities*, a *Cautery* in three several Parts of the Scalp.

Lusitanus this following, which cured an Infant fifteen Days old of the like Distemper.

℞ Pulv.

℞ Pulv. Absynth. Chamæmel. Melilot. ana ℥ij.
Butyr. rec. Ol. Chamæmel. ana ℥ij. Cere parum ad
Ignem f. Unguentum.

Likewise this he extols for the same Purpose.

℞ Mel. ℥iv. Sal. ℥ij. Pulv. Origan. ℥i℔. m. in
star Unguenti.

Paulus has written largely of the same in his sixth Book and third Chapter. Several monstrous Cases you will see also in *Schenkius*, where some were found with the *Sutures* standing vastly asunder. Others the whole *Cranium* membranous, whilst the *Scalp* was also so puffed up, that the Eyes were lost in the Head, which was found to weigh much more than the whole Body besides.

But waving these, I shall give an Observation of my own of the same Distemper, attended with some uncommon Appearances, and after a few Remarks, proceed to the other aqueous or watery Tumours beforementioned.

HIST.
xxxii.

A Child (about three Years old) of an eminent Merchant, having from its Birth been subject to obstructed *Viscera*, grew about this Time *Ricketty*, with the *Apophyses* of the Joints preternaturally bunching out or knotty; the Head also, which was originally large, began to appear *œdematous*, with the Face in like manner bloated.

Dr. *Edward Tyson* was their Physician, and prescribed several *deobstruent* Medicines, some of them reckon'd as *Specifics* in that Disease; as *Apozems*, ex Rad. Cichor. Filic. Mar. Osmund. regal. Cort. Cappar. Median. Fraxini, Tamarisc. Fol. Agrimon. Ceterach. Ling. Cerv. Capil. Ven. interchangeably

exchangeably one or other, as he thought convenient, edulcorated with the *Syr. Capil. Ven. vel de 5 Rad. Purgatives* likewise to carry off the superfluous Humours by Stool, *ex Rbeo cum Calomel.* In the *Syr. Viol. Rosar. vel de Cichor. Juleps ex Aq. Fœnic. Lumbric. mag. & Syr. Capil. Ven. Ex-*pressions of the *Millepedes* in the same Waters; also *Chalybeates*, such as were suited to the Age, to invigorate the Blood, and give a Spring to the Fibres, as the *Tinctura Mart.* and the *Syrupus Chalybis.* A *Fontanel* was made *sub Nucha*, and *Vesicatories* applied both to the Shoulders and behind the Ears, which were continued open by a fresh *Stimulus* from the drawing Ointment before mentioned, several Weeks; and this in the way of the *physical Prescriptions.*

To the Scalp, which was overflowed with a watery Humour, I applied thin double Flannels wrung out hot of the following Fomentation, and suffer'd them to dry on, repeating them twice a Day.

℞ Summit. Rorismar. Fol. Salviæ Beton. ana m℥. Flor. Samb. Chamæmel. ana m℥. Anthos Lavandul. ana ꝑj. Coq^{te}. in Aq. Calcis, q. s. pro Colaturæ ℥ij. Tempore usus infundendo tantillum Spir. Vini Camborat. & f. Fotus, in quo intincti Panni lanei molles, calidèque ac strenuè expressi, applicentur circumcirca, Calvario prius raso, per Semiboram pro uno Tempore, & renoventur eodem modo bis quotidie, Mane scilicet & Vesperis.

Nevertheless the Distemper being out of the Reach of Medicine; altho' the Scalp seemed by the outward Application to be much thinner, and the extravasated Serum thereby discussed; yet upon the Discontinuance thereof but for two or three Days, a fresh Supply came on, and at length falling

falling into a *Coma*, he was carried off suddenly.

The Day following, in the Evening, I opened the Head, the Doctor standing by, making a strait Incision with my Knife, from the upper Part of the Nose, or between the two *Orbits*, over the *Sagittal Suture*, to the lower Part of the *Occiput*, the Skin however flabby, being now fallen and subsided, which with a *Spatula* making way for my Fingers, I therewith stript and turned down below the *Ossa Petrosa* on each Side, laying so much of the *Cranium* in View, that by passing my Saw circularly through, the same might be raised up, and the Brain thereby exposed to our Observation.

The single *longitudinal* Incision, I think much neater than the *crucial*, as less mangling the outward Part, and when the View is finished, and the Skull laid down again, the Scalp, drawing over shuts all close, and which I have sometimes so ordered, where the Hair especially is clipt only, that the Stitches being thereby obscured, the Corps has been after exposed, without observing, that the Head had been ever looked into, or the Brain dissected: But this by the way.

When I had with the back of my Knife raised off the *Pericranium* to make way for the Saw, I drew a Thread dipt in Ink around for its Direction, then bearing gently therewith, first of all upon the right *Bregma*, till I had made a shallow *Sulcus*, when pressing somewhat harder, the same split in unawares, and a bloody *Serum* gushed forth in great Quantity, or rather a serous Humour tinged with Blood, upon breaking through the spongy *Cranium*; whereupon observing the soft Nature thereof under its outer Shell, or *Lamina*, I gently went all round the Su-

perface of the Remainder, to avoid the like In-
 convenience, and entering the Point of a strong
 dissecting Knife in the Place I had first slit
 thro' with my Saw, I cut the rest quite thro'
 with little Trouble; then lifting out the divided
Cranium, I was surpris'd at the uncommon Make,
 great Thickness and Softness thereof, measuring
 about the *Ossa Frontis* and *Occipitis* more espec-
 ially above half an Inch, in some Places three
 Quarters, the outer and inner Plate being ex-
 ceeding thin, whilst the intermediate Substance
 was a loose *Compages* of bony *Striæ*, confusedly
 passing from one Side to the other, or a kind
 of *Diploe*, or Cells made up of the said *Striæ*,
 I'll'd, I cannot say so properly with a *Meditul-*
um, as a *Cruor* or bloody *Serum*, which run-
 ning out of the Cells upon their Division, had
 coloured the said *Serum*, diffusing itself from some
 eight Gashes made in the *Crassa Meninx*, by the
 Point of the Knife slipping in some Places thro'
 the same.

When we had made our Remarks upon the
 skull, and going to lift out the *Encephalos*, a
 stander by, belonging to the Family, told me
 he had express Orders to forbid our proceeding
 farther; wherefore imbibing what I could of the
Serum with Sponges, I contented myself in taking
 View of the same *in Situ*, and snipping up the
Dura Mater in its whole Length, suck'd up after
 the same Manner the Remains of the serous
 Humour.

In parting the *Falx*, and turning the two fore
Lobes aside, to have a Sight of the *Medulla ob-*
longata, a more limpid or clear Liquor arising
 from the Ventricle, broke forth in a large Quan-
 tity.

But

But replacing these, and pressing the *anterior Limbus* somewhat backward, that I might see the *Optic. Ocul. Motor.* with the rest of the Nerves passing through the *Orbits*, and *Foramina narium*, I perceived them so exceeding tender, that they broke off so soon as ever they came into Sight.

Hence proceeding backwards, and raising the hinder *Limbus* in like Manner, that the *Cruca* of the *oblong Marrow* might present, more of this ferous *Latex* I found had been there floating; so that the whole Brain lay as it were steeped in a Pond of Water, as well within, as on the outside; and yet the Child, but few Days before its Death, was as sensible as most of its Age.

Thus having (tho' but slightly) observed those Parts of the Brain, peculiarly so denominated, without meddling with its Appendage the *Cerebellum*, sitting on the upper Part of the *Cranium*, I instantly drew up the Scalp on each Side, and stitching the longitudinal Incision, left the Head as seemly as if it had been untouched, even before the Dressings; but when the Cap and Fore-head Cloth were put on, the passionately fond and sorrowful Mother was admitted, who, though lifting the Head from the Pillow, could scarce believe that the same had been opened.

I could not choose but take Notice, that in pressing, however gently, upon the *medullary* Parts of the Brain, it seem'd to deviate through its whole *Compages* from its usual more firm *Con- texture*; whence to difference its Nature from the softer *cortical* or *cineritious*, it had its Denomination of *Callous*; but in this Subject so exceeding pappy, separable, and, as it were, rotten, that it might rather be termed *Pulticular*, scarce suffering the Touch, without being as it were marked thereby.

* And here indeed I have been often put upon a serious Consideration, how such a Heap of *Pultis* like Matter, a kind of *Quag* or *Bog*, and which, as *Sydenham* observes, carries so little *Analogy* in its Form, and appears seemingly so unlikely to manage an *Office* of *Intelligence*, should yet be qualified for the same; that here, I say, as in some great *Emporium*, the Business not only of *Sensation*, but *Imagination*, *Memory*, *Reflection* and *Ratiocination*, should be principally kept and transacted: Or that as the Rays of Light from the Sun are instantly transmitted to all the sublunary Parts of the great World; so hence the *Sensitivum Quid*, in like Manner, through the nervous Tubes, having here their Origin, should as suddenly as those Rays darted from that great Luminary, be likewise conveyed to all the Confines of the lesser; or that hence, as swiftly those imperceptible Messengers called *animal Spirits*, should, at the *Nutus Animæ*, rush through their Meandrous Paths like Lightning, and having dispatched the Mandates of the Will, as speedily bring back their Errand to the *common Sensory*: That here, I say, the *Soul* should hammer out the *liberal Arts and Sciences*, and furnish the Knowledge of most other Beings, whilst she retains so short a Glimpse of the *di ðti*, or rather, still remains in almost perfect Ignorance, how these Appearances are really brought about: *Astonishing surely this!* A most *stupendous Providence!* And may we not surmise, design'd at least to humble us, if not to acknowledge our Depen-

* *A Digression concerning the Imperfection of our Knowledge, in Regard to the Brain and its proper Offices, particularly Sensation and Intellection.*

dence, when we reflect that the same *supreme Being*, who, as the *sacred Records* witness, said to the proud Waves, *hitherto shall you come, and no farther*; has laid the like Injunction upon the most prying Eye, the most expert and inquisitive Dissector, whether *Physician* or mere *Naturalist*, when he has look'd over the other Parts, the Fabric of the Muscles with their geometrical Proportions, the Articulations of the most stable ones, the Bones, the Divarications of the Vessels, *Veins, Arteries, Lymphatics*; the admirable *Mechanism* of the *organic* Parts, so well adapted to their several Uses; nay, even the curious Filaments, or *Plexus* of the *Nerves* themselves, with their Source at this Fountain Head, the Brain, meet now with the same *huc usque, sed non ultra*.

For would we confess the Truth, how short indeed thereof are all our *Hypotheses* and *philosophical Systems*, even the modern ones laid down by the Mathematicians themselves, concerning some of the inferior Acts of the animate Bodies, *Sensation*, and *muscular Motion*; where instead of the *Demonstration* those Gentlemen pretend to, we must put up with Probability, and *Verisimilia* are to supply the Place of the *proprie ac realiter vera*: How can we think otherwise, when even the Foundation of some of them is yet disputable; and in the Schools it has been lately made the Matter of a public *Thesis*, *An dentur Spiritus Animales? An Anima ipsa sit materialis, vel immaterialis?* Either Side of which Argument has its public Opponents: *Nam si prior, Cogitatio, ac Materia, sunt res incompatibiles; si posterior, Substantia immaterialis, non potest agere in rem materialem.*

These Difficulties have perplex'd the greatest of our Naturalists as well as Physicians ; though I think this last Age, however degenerate, hath produced among the latter but one open Champion, how many soever lye under Covert, for the Materiality of this Being, who, though bold enough and barefaced, is still a Coward.

In the midst of these dark Glimmerings, or rather in a Mist of Darkness, through all Ages past, stands yet this *Primum mobile*, the Soul ; and what better Insight our late Mathematicians have given us, in explicating this *Phænomenon* of Sensation, let others judge : Whoever, I think, looks over one of their Descriptions of ' the arterial Fluid passing the Origin of the Nerves, and there constituting a two-fold Substance, the one more subtil, dignified with the Name of Spirits, the other viscid, and gentler drilling through the nervous Tubuli ; and thus, saith he, as animal Motion is effected by an Efflux of these Spirits into the Muscles, or by their direct or longitudinal Motion, so is Sensation by a Reflux of the same towards the Brain, the Origin of those Nerves ; for since there is a Reflux, as there must be in every Sensation, that is, the Object striking and compressing the Extremity of the Nerve, either by itself, or some Particles flowing from it, whence the Part next adjoining is dilated by the resfluent Fluid, the next above being contracted in the Interim ; and so, by these alternate Contractions and Dilatations, an undulatory Motion is excited in the Nerves ; wherein, saith our Author *, the mathematical Foundation of Sensation consisteth.

* Pitcairn, in his Elements of Physic.

Now, whoever, I say, considers or reflects upon all this, together with what follows, ' of the Conflux of the nervous and arterial Fluids, ' with their sudden Rarefaction and Expansion of ' the same every way, either of one or other, or ' of both, as they flow into the Muscles, which ' are farther necessary to that Motion, will find the same however fitter adapted, yet as short, I think, of that Sort of Demonstration it pretends to, as the *Willisian Explosion* they have so much derided; several of these Explications being, I think, rather *gratis sumpta atque dicta*, than *mathematicè probata, vel demonstrata*, and which perhaps we may live to see demolished, in order to make way for some other Superstructure.

Thus far indeed we seem to be incontestably arrived, viz. that this *Pulp* or pappy Substance we call the *Brain*, is the prime or chief Residence of what we call the *Soul* or Mind, from whence her Mandates issue forth; that hence those little Threads, the Nerves, have also their first Rise or Origin, like so many Couriers or Messengers, either conveying by simple Contact their Intelligence, or containing somewhat that does some way or other (but we know not how) convey or deliver the same as well to, as from the *common Sensory*, is also indisputable. But how all this, I say, should be transacted quick as Thought, or indeed how Thought itself should influence those subtle Bodies called *Spirits*, or the supposed nervous drilling Fluid in the Manner explicated, in order to this Sense and Motion; or finally wherein this Thought consists, is still as much a Mystery, as in the Days of *Galen* and *Hippocrates*, and all that has been said amounting to little more than Guess or mere *Hypothesis*, the

the *Phantoms* of speculative Men, bewilder'd in their own Imaginations ; and hence, no Wonder, the Diseases of the nervous System, or those we call *cephalic*, are so much above our Reach, and, as it too often proves, so unsuccessfully attempted ; so that it was not without great Reason, that the candid and judicious *Sydenham*, who had so accurately and graphically described others, both *acute* as well as *chronical*, being asked, why he had not decypher'd also the Diseases of the Brain, ingenuously replied, *because he did not understand them*. But returning to our Subject.

That the Heads of all *ricketty* Children are not thus form'd, I think, is plain from Observation ; but this is certain, that they are usually much larger than others in their Compass externally, and that from the unequal Distribution of the nutritious Juice, their great Humidity and laxer Habits, not only the Extremities of the other Bones bunch out, or protuberate, but the Skull is more capacious, the Interstice of the two *Tables* wider, or the *Diploe* thicker, the Brain itself also much larger, and sometimes deluged by Serosities overflowing the same.

'Tis from this large Bulk of the *Εγκέφαλος*, that some will have these Children to be more witty, or riper in their Understanding, than others of the same Age ; which I see not how should happen, since a dry *Temperies*, if not on the Extreme, seems more likely to retain the *Ideas*, than the Humid. Besides, do we not daily observe an over-moist Brain attended with *Ideotism*, *Stupidity*, or some *lethargic Distemper*, whilst the dry runs into *Fury*, *Deliria*, and *maniacal Disorders* ? Neither the Magnitude of the Skull or Brain contributing surely so much to the

Understanding, as the due Modification, or exact *Mechanism* of the Parts, of which this latter is compos'd.

What hath contributed to such a Remark, may, perhaps, be this, that these Children being stunted in their Growth, we are apt generally to take them to be as young again, as others of the same Stature, and consequently to be more pleased with their Talk; beside, through Inability to Action, Play, or Diversion, as others, by their sedentary, and, as it were, contemplative Life, their Imagination is less hurried and distracted by Diversity of *Ideas*, confusedly crowding upon the common Sensory; and therefore what they do conceive, makes firmer Impression and abides longer by them.

Hi. xxxiii. A Skull somewhat like the former, but not altogether so thick, I remember to have dissected in Company with Dr. *Coatsworth*, which he thought might be well enough denominated an *Exostosis totius Cranii*, there being a very great Distance between the two *Tables*, appearing *cellular*, or porous as a Sponge, and admitting the Knife as the former to divide the same.

Hi. xxxiv. I once had the View of a Child about two Years old, whose Head measured twice the Compass of another standing by, of a greater Age; it was shewed me as an Object of Charity; upon pressing all round the *Scalp*, the same felt exceeding puffy, like the Flesh of Veal blown up by the Butcher, receding upon Pressure, and a *Flatus* breaking through some Perforations or watery *Ulcuscula* near adjoining.

By the usual Stupidity attending these monstrous Heads, I conjectured there might be a ferous Extravasation, as well under as above the *Cranium*, which though very large, yet was vastly dispro-

disproportionable to the Compass of the external Part, or the *Scalp*, the Fulness lying principally therein, appearing rather *emphysematous* than *anasarcous*; and indeed it was my Conjecture, that the vile and wicked People who had the Care of it, though one of them went for the Parent, had if not entirely raised this surprizing Swelling, at least very much enlarged the same by *Blow-pipes* enter'd at those *Foramina*, tho' in some Places scarce to be perceiv'd, yet in other very manifest, which, they said, were Issues made in the Country, to drain away the Waters: I intended to have administred all the Help I could, but having given them a Disgust, or by some Expression I had let fall, apprehending I might detect the Roguery; when I came next Day, the Child was remov'd, as the Neighbours told me they had given out, into the Country, and I never after could understand what became of them.

The Description of an *Hydrocephalus*, as I find the same delineated by Dr. *Freind* in the *Transactions*, many Years past, I shall here set down.

The outward Dimensions of this Head, before it was open'd, were as follow, *viz.*

- ' From the Eyebrows over the Crown to the Nape, twenty three Inches; the Circumference from the Nape round the *Offa Bregmatis*, twenty six, but round the *Os Frontis*, twenty four; from Ear to Ear over the Crown, nineteen; from the Eye-brows to the Chin, four; from one Extremity of the Eye-brows to the other, four and a half; from the Chin to the *Coronal Suture*, seven and a half; Circumference from the Chin round the Crown thirty; from one Extremity of the Ear backwards to

‘ the other, round the Nose, twelve, and round
 ‘ the Nape, six and a half; from Temple to
 ‘ Temple over the Forehead, eleven; Circum-
 ‘ ference of the Head round the *Os Frontis* and
 ‘ *Occipitis*, twenty nine; Circumference of the
 ‘ Neck, nine and a half; Length of the Neck,
 ‘ two; Length of the Body, thirty three; Cir-
 ‘ cumference of the *Thorax*, eighteen; Length
 ‘ of the Feet, four and a half; from the middle
 ‘ Finger’s end to the *Acromium*, twelve and a half;
 ‘ Circumference of the Arm, five; of the Calf,
 ‘ five and a quarter; the Thigh, eight.

‘ After the Integuments were remov’d, the
 ‘ Top of the *Cranium* appear’d soft and mem-
 ‘ branous. The Extent of the Membrane from
 ‘ one Temple to the other was eight Inches; be-
 ‘ tween the parietal Bones, three and a half;
 ‘ from the *Os Frontis* to the *Os Occipitis*, twelve;
 ‘ in the middle just upon the Crown lay a Bone
 ‘ (in some Places a little cartilaginous) five Inches
 ‘ long and one broad, joined to the Membrane
 ‘ on every Side, of the same Thickness with the
 ‘ rest of the upper Part of the *Cranium* that was
 ‘ bony, which was extremely thin every where;
 ‘ and the *Laminae* lay so close, that in many Places
 ‘ no *Diploe* could be discern’d; the Membrane
 ‘ was as thin as the *Pericranium*, which yet was
 ‘ easily divided from it; None of the *Sutures*
 ‘ were entirely closed; those of the upper Jaw
 ‘ very loose: In the *Temporal* and *Lambdoidal*
 ‘ were an infinite Number of the *Triquetra Wor-*
 ‘ *miana*, all which had so many distinct *Sutures*.
 ‘ Upon piercing the *Dura Mater*, a great Quan-
 ‘ tity of Water flowed out; it lay as well be-
 ‘ tween the *Dura Mater* and the *Pia*, as in the
 ‘ Ventricles of the Brain; The Liquor was thin,
 ‘ pale and insipid; there was taken out five

Quarts of it: The *Dura Mater* was firm and entire, of its usual Thickness, and stuck very close, as well to the membranous as to the bony Parts of the *Cranium*; all its *Processes* and *Sinus*'s very singular, the fourth *Sinus* somewhat larger than ordinary. A very large Vein of the *Dura Mater* entered the longitudinal *Sinus*, directly forwards towards the *Crista Galli*, contrary to the Course of the Blood. The *Pia Mater* was very much distended, and seemed to be stretched as much as it could bear; it lay smooth and equal upon the Surface of the Brain, there being neither any Circumvolutions in the Brain for it to go between, nor any Partition to the *Corpus Callosum*, though the *Falx* was large in the *Dura Mater*: The *lateral Ventricles* were very thin: Towards the *Cerebellum*, their upper Part was quite wasted, so that nothing was left to cover the Cavity in that Place but the *Pia Mater*: This was so thin, that in stooping down the Head to empty the Water it broke, and hindered us from knowing exactly how much Water the *lateral Ventricles* contained, but by their Cavity, which was very large, one might guess they held a Pint at least each. The third and fourth *Ventricle* had some little Water in them, but were scarce larger than usual: The Brain had all its Parts plain and entire, though its Substance in most Places was but very thin and loose. About the *Corpora Striata* and *Thalami Nerv. Opt.* it was tolerably thick and firm enough, though nothing to what it is in a natural State: The *Cerebrum* and *Cerebellum*, when laid out in their right Position, were eleven Inches long: The *Cerebrum* cross the *lateral Ventricles*, nine
broad,

‘ broad. After all the Water was taken out,
 ‘ both of them weighed a Pound and a half.

Leaving the rest of the Dissection of the Parts
 of the Brain, we shall conclude the Remarks in
 our Author’s Words.

‘ The Mother of this Child brought it to
 ‘ Oxford for a Sight; she said she was three
 ‘ Weeks in Travail, and at last was forced to
 ‘ have the *Vagina* ript for its Passage: The Child
 ‘ was two Years and six Weeks old; it could
 ‘ speak a little; it could not go nor hold up its
 ‘ Head; was always merry and never subject to
 ‘ Drowsiness, Pain in the Head, want of Appe-
 ‘ tite, or Indigestion; its Sight was dim, and
 ‘ the Smelling dull; never had any Illness, unless
 ‘ two or three Days before it died, when it
 ‘ seem’d much troubled with Gripes, and upon
 ‘ opening the *Abdomen*, the Guts were found
 ‘ extremely swell’d with Wind; every thing else
 ‘ was as it should be.

Of the ANASARCA.

Anasarca. The *Anasarca* is defined an hydropic, or watery
 Tumour seated between the Skin and the Flesh, or
 in the Interstices thereof, as the Name implies
 of a white, shining, or pellucid Colour, dull of
 Sense, and pitting as the former; more common to
 the Thighs, Legs and Feet (in the Scrotum it being
 called rather Hydrocele, of which presently) by
 Reason of their declivè Position when the Body is
 erect.

*Causes
 thereof.*

The Cause of this Tumour we ascribe to the
 impoverish’d State of the Blood, the Destruction
 of its Balsam, and Defect of the native Heat
 by which the Compages thereof being loosened

and its pristine Tone destroyed, it runs into a serous or watery Humour, and breaking forth the Vessels, diffuses itself round about, till it has made a kind of *Quagmire* of these depending Parts.

How far the *Lymphæducts* are concerned also herein, I shall not be positive, it being perhaps not material, since these are derived from the Extremities of the Vessels aforesaid, and carry off the superfluous *Serum* from the Blood, which by Rupture or some other Way they may very probably shed at these Times.

That ingenious Anatomist, Mr. Cowper, deriving the Origin of these Vessels from the said Extremities, argues thus :

• The Rise of the *Lympha* hence is still more clear, if we consider in some States of the Blood, when its *Crafsis* is weakned, some Parts pass this way, and the *Lympha* is tinged by it ; as it happens by injecting Water by the *Arteries* after Death, when Part of the Blood still remains in its Vessels, you will see the *Lymphæducts* fill'd with a bloody Water.

The *procatartic* or antecedent Causes are usually what is called now a Days *good Fellowship* or *Bottling*, Morning Draughts, and that pernicious Custom of *Whetting*, under Pretence of creating an Appetite, subverting the same, which being succeeded by the Afternoon's Tipling, and sitting at it late at Night, in little Time destroys the *esurine Ferment*, if there be any *Ferment* at all, which is denied by some ; however that be, relaxing the Tone of the Ventricle, weakens its native Heat and Spring, till at length unbending the *Solids*, and dissolving the natural Compage of the *Fluids*, there is way made for this Inundation of the serous Humours to break forth their

their Inclosures, and run out into the Interstices of the Flesh, or dropping into their Cavities, to make a Pond in each of the Venters.

I need not, I think, stay to enlarge, by shewing you how from the same Cause, the *Viscera* themselves become putrid, and the *Liver* more particularly rendred *scirrhus*: Whence by Degrees a Stop to all the regular *Secretions*, till the Deluge coming on, and increasing, at length the poor Wretch, who, like *Tantalus*, thirsts in the midst of Water, can no longer keep his Head above the same, but the rotten Fabrick unable now to support itself, drops down into the Grave.

There is yet another Cause of this Disease, viz. *great Loss of Blood, from Accidents of Wounds, Bleeding at Nose, which happens too at the breaking up of the Constitution by hard Drinking, the Hæmorrhoides, and overflowing of the Menfes*; from whence the Texture of the Blood being weakned, and its *Gluten*, as I may say, dissolv'd, the new Chyle not rightly assimilated, runs out into *Serum*, and overflows the Parts.

In prognosticating upon this Disease, we are to account the same more or less dangerous, according as it is complicate, the Manner and Way it has been produced, the Habit of Body, with the Age of the Sick.

Prognostic. Thus when it is attended with an *Ascites*, it is always dangerous; also if it came upon hard Drinking, especially of *Spirits or distill'd Waters*, when the Bowels are tainted, the Tone of the Stomach or the Appetite destroyed, the Liver grown hard, the Mass of Blood and its Balsam dissolved, the Vessels also, in a Manner, lax or half rotten, with the outward Complexion, as it were, coddled and icteritious, the Sick moreover in a declining Age, the Case is ever desperate.

On

On the other Hand, *where there is no Dropsy of the Breast or Belly, or where the Swelling is owing to some accidental Hæmorrhage, by Wound or the like, the Habit otherwise good, the Appetite strong, and the Diseased rather on this than the other Side of his Meridian, the Cure is hopeful.*

About which I shall not stay to enlarge, but only hint to you, that the same is chiefly founded in the strengthening or invigorating the whole Mass, after the superfluous *Serum* has been carried off by some proper *Hydragogue* before observed, and corroborating also the relaxed Fibres.

This Cure indeed so wholly depends on the inward Prescription, that unless in Case of Ulceration, as formerly observed, there sometimes needs no help from Surgery; excepting also, as falls out sometimes, by prescribing *Vesicatories* to the Parts, in order to drain away the serous Humour thereby, the Physician makes Work for the Surgeon, it being an easy Matter to get the Skin of these People off, but very difficult to get it on again; and how indeed should it be expected otherwise, when the Blood is thus weakened and depraved, its native Heat, and glutinous Particles, both which would assist in repairing the Breach destroyed; and you have nothing but a putrid or stagnant Humour to furnish the Materials of *Digestion, Incarnation, Agglutination, or Cicatrification*, in the Place of a well constituted and rightly assimilable nutritious Juice, the Medium of them all?

When the Case so happens, you must take Care by a good *elixiviate* and *discutient Fomentation*, prepar'd of the hotter Plants, as directed for *Oedema*, or for the Tumour last described, to cherish the decayed Heat, dissipate the impacted Humours, and, if possible, to keep off
Gangræna,

Gangræna, whilst the Ulceration is dress'd with some warm Digestive, such as the *Linim. Arcæi* with the *Bals. Terebinth.* or a little of its Oil, if the same shall ensue, in the Manner prescribed for that and the *Mortification*.

Hydragogue Medicines.

The internal Remedies directed commonly to purge off the Serum, are usually one or other of the following *Hydragogues* and such are reckon'd the *Gutta Gamba*, the *Cortex*, *Semen* & *Succus Ebuli*, also the *Succus Ireos. nost.* the *Pulvis* & *Resina Jalapii*; Medicines ready compounded are the *Diaturbith.* and *Diacartham.* For this End likewise serves very well the *Vinum Hydropic.* of *Bates*.

There are besides these, certain other famous *Water-purges*, such as the *Cataputia major*, seu *Ricinus vulgaris*, called *Mexico Seeds*: *Ricinus Americanus*, or the *Barbadoes Nut*; the *Grana Tiglia*, seu *Granadilla*, i. e. *Nuclei Moluccani*, or the *purging Nut* of *Molucca*. *Soldanella*. Of Kin to these is our *Elaterium*, prepared of the *Fæcula*, or inspissate Juice of the *wild Cucumber*, which, though surly enough, is not so strong as the rest.

But these, how highly soever extol'd by villanous *Quacks*, and bold ignorant *Empirics*, who, if they cure one, kill more than twenty by administering thereof, I purposely pass by, as too dogged and dangerous Medicines, to be given without the utmost Caution and Regard to the Strength and Habit of Body.

Some Forms of these Remedies I shall here set down for the Advantage of young Practitioners, as I have successfully directed myself, or been in Consult with other Gentlemen of the Faculty, when they have been prescribed, still allowing

Following for the Difference of Habits, Age and Vigour, or Strength of Constitution.

℞ Pulv. Rad. Jalap. ʒß. Gambog. gr. x. Zinzi-
er. gr. v. Syr. de Spina q. s. m. f. Bolus.

℞ Cort. Winter. Sem. Sinapios contus. ana ʒj.
Rad. Raphan. rustic. Vini Absynth. ℥j. Spir. Bac.
unip. ℥ß. Infunde tepide & filtretur: Sumat Cochl.
quatuor Mane ac Vesper, pro tribus vel quatuor
septimanis.

These were originally from our famous Coun-
tryman Dr. Lower, the former to purge by Stool,
the latter by Urine.

The following is an easily prepared Medicine
and a good Water-purger, insomuch, that upon
its Success in an *Hydropic* Patient, the candid
Sydenham acknowledges he thought himself Ma-
ster of an infallible Remedy for that Disease, but
found himself quickly after mistaken.

℞ Vini albi ʒiij. Syr. de Spin. Cerv. ʒiß. m. f.
laustus.

℞ Cort. inter. Sambuci p. ij. Absynth. Rom. mß.
Rad. Gent. ʒß. Sem. Sinapios, Dauc. Sylv. ana
ij. Infunde in Vini alb. gallic. ℥ij. & bibat
laustulum ter in Die.

This last was Dr. Radcliff's.

℞ Tinct. Rad. Jalap. secund. Bates, plus minus,
secundum vires, ac modum operationis. Detur cum
lino.

This our Author calls the *Tinctura anti-Hydro-*
ica, and is a notable *Hydragogue* in cold bloated
Habits.

℞ Summit.

℞ Summit. Genistæ mj. Absynth. Rom. mß. Rad. Raphan. rustic ʒß. Bac. Juniper. ʒij. Infunde in Vini alb. ℥ij. & capiat Coch. v. ter in Die. Vel.

℞ Aq. Laet. Alex. ʒj. Absynth. mag. C. Acet. Scillit. Syr de v. Rad. ana ʒij. m. f. Haustus omni Mane sumendus.

Where the Patient is of a declining Age, or too weak to be ruffled by any of the foregoing, you may attempt a Derivation of the said Humours by the urinary Parts, for which Purpose the *Sal Succini* given to ʒß. gr. xv. or ʒj. in some diuretic Julap, or Apozem, does good Service; some use the *Pulvis Æthiopicus* in *Bates* or the Toad calcined.

The common Remedy, and that no despicable one, I can assure you, in this and other Watery Diseases, is prepared *ex Summit. Absynth. ad Genistæ Rad. Raphan. & Sem. Sinapios in Vini albo vel Hoccomatens. infusis*. But whatever way the Water is emptied, the *Bitters* and *Chalybeate* must be ordered between whiles, to strengthen the *Tone* of the *Viscera*, as well as that of the Blood.

I have inserted under each *Cathartic*, a Form of *Diuretic*, that the Practitioner in such Habits and such a State of the Bowels, as will not bear the Ruffle of the former, may attempt the Cure by the latter: During the Use of which, between whiles, some corroborative *Stomachic* must be taken, of which Kind are the following.

℞ Conf. Absynth. Rom. ʒj. ZZ^{ris} condit. ʒij. Cort. Cinnamom. Pulv. Galang. min. ana ʒj. cum Syr de Absynth. q. s. f. Elect. de quo capiat Quant. N. M.

omni Mane & quinta Pom. superbibendo Coch. v.
vel vi. Vini seq^{is} medicati.

R. Rad. Gentian. incis. ʒʒ. infunde in Vini Hyss.
ʒij. ad usum.

These were frequent with Dr. Lower upon such like Occasions, as were the two following by his Successor, by some esteemed the *English Æsculapius*, and which are now in common Use with one in the highest Form of Physick.

R. Conf. Absynth. Rom. Flaved. Aurant. condit.
ana ʒj. Conf. Anthos ʒʒ. Pulv. Rad. Ari, C. Rubig.
Ferri ana ʒij. Syr. è Cond. N. M. q. s. m. f. Elect.
ut prius sumendum cum eadem Quant. infusi seq^{is}.

R. Summit. Absynth. Rom. ʒʒ. Rad. Gentian. ʒʒ.
Sem. Coriand. Cardamom. ana ʒj. infunde in Aq. F.
q. s. pro Colaturæ ʒx. cui adde Aq. Absynth. mag. C.
ʒij. m.

A strong young Fellow, of an excellent good Habit, before he had made too free with it, employed in drawing Drink by a Victualler in my Neighbourhood, having been some Time addicted to the Tipling of strong Beer and Brandy, fell at length into a dropfical Swelling of his Legs and Thighs, Loss of Appetite, and short Breath.

When he had tried a great many Remedies recommended to him by Persons coming to the House, and growing still worse, there appearing a Tumour upon his Cod, a Retraction of the Penis with a Crystalline at the Extremity, threatening a Gangrene; being removed to a Relation's House, he was recommended to my

Care by one of them; and though I found him with a slow Pulse, and high-coloured Urine, yet was it not so deep or *lixivate*, nor so little in Quantity, as in the *Ascites* is generally perceived; and his Belly being but small in Proportion to his Thighs and Legs, though there was great Difficulty of Breathing, yet his short Neck and Purfiness rendring him more liable to the *Dyspnæa*, I had entertained some Hopes, that neither his *Liver*, nor other *Viscera* were tainted, but that the Distemper chiefly possessing the depending Parts, I might be able to recover him. In order to which, when I had lightly scarified the *Præpuce*, I fomented the same with Flannels express'd strongly out of hot Claret, which was soonest provided, making up with a Stupe from the same, and a dry one over it: The next Morning, being provided of a discutient *Fotus*, like that for the *Oedema*, with a little camphorated Spirit, I fomented as the Day before; but that I might lose no Time, as laying little Stress upon Topicks in regard to a Cure, I directed for the next Day this following *Bolus*.

R^o Gut. Gamb. gr. xv. Tart. Vitriolat. gr. v. Elect. e Suc. Rosar. 3j. Ol. Caryophyl. gut. ij. Syr. Viol. q. s. m. f. Bolus.

Which purged off a large Quantity of serous Humour, though a little roughly, working upwards and downwards, or as Physicians speak, *ἀνω καὶ κάτω*, which having Strength to undergo, I was not concerned at the first, making a powerful Revulsion for the Relief of the *Penis*; the latter also, as I intended, by carrying off the serous Humours, contributing to the lessening of his swell'd Legs; and indeed the very next Day

I perceiv'd a sensible Amendment; whence finding him able to bear up under the Operation, and every way so much better for the same, after a Day's Respite, I repeated the *Hydragogue*, which work'd off in about three Hours, giving nine Stools, with less Vomiting than the first.

In the mean time, I order'd every Night, that his Legs should be wrapt up in Flannels dipt and exprefs'd hot out of three Parts of a strong *Aq. Calcis*, and one of *camphorated Spirits*, rolled up when he was put to Bed; the like Application being now applied to the *Scrotum* and *Penis*. For his Breath he took two Spoonfuls of the following Mixture lying down, or in the Night, as the same, together with his Cough, proved troublesome.

R. *Aq. Cinnamom. Hord. ʒij. Mirabil. Oxymel. Scyllit. ana ʒj. Syr. Croci, ʒʒ. m.*

After his third Purge, we gain'd very considerably upon the Swelling, he grew also abundantly more lightsome: The *Scrotum* and *Penis* were in a manner entirely free; his Breath also was so much easier, that he could lye as low in his Bed as formerly, which for some Weeks before he was unable to do, without sitting almost upright, or supporting himself high therein with Pillows.

This encouraged us to proceed, allowing him now two, and sometimes three Days between; and giving the following *Pill*, his Stomach turning against his *Bolus*, the last of which he had thrown up, as soon as he had taken the same.

R. *Pil. Rud. ʒj. Gambog. gr. xv. Tart. Vitriolat. gr. vj. Ol. Caryophyl. gut. ij. Syr. Viol. q. f. m. f. Pil.*
R 2

Pil. iv. vel. v. sumendæ manè cum usuali Regimine.

Which wrought briskly, and held somewhat longer in the Operation than the *Bole*; but the Day following, finding himself a little faint, he desired he might have done with Purging, as fancying himself now out of Danger. However, after a few Day's Respite, I found him so well recruited, and satisfied too by his own Experience of the visible Alteration after each Purging, his Thighs being almost as small as ever, and his Legs not above one half in Compass they had been, unless about his Feet and Ankles, that he submitted, only begging I would change the Form of his Medicine, not knowing how to swallow any more Pills; in Compliance with which, I directed this following Draught.

℞ Vini albi ꝑijß. Gum. gut. i. e. gut. Gamb. ʒß. Pulv. Rad. Jalapii, ʒß. Aq. Mirabilis, Syr. de Spina Cerv. ana ʒss. m. f. Haustus, cum Custodia debita sumendus, usuali Regimine observato.

This Draught operated also nine or ten Times, with as great Advantage as the rest, so that we had little Occasion for farther Evacuation this way, giving only two more at four or five Days Distance, still humouring his Palate by changing the Form of his Medicine, yet answering the same Intention: The last directed being the Powder and Draught following.

℞ Gut. Gamb. gr. xii. Pulv. Jalapii, ʒj. Tart. Vitriolat. gr. iv. Pulv. ZZ^{ris} gr. vi. m. f. Pulvis, sumendus in Cochleari Mixturæ seq^{tis} reliquum superbibendo.
℞ Aq.

℞ *Aq. Cinnamom. Hord. ℥iſs. Absynthi. mag. C.*
℥ſs. Sacchar. albi parum m. f. Hauſtus.

Which wrought like the reſt plentifully and ſpeedily, and ſo entirely carried off the ſuperfluous Remains of the watery Humour, as to render the Repetition unneceſſary: His Legs, which a little before I thought would have ſtood in need of laced Stockings, and which, a few Weeks paſt, appeared like ſo much Dough, burying, as it were, all my Fingers in the Impreſſion, being cold, and ſcarce ſenſible to the Touch, having now regain'd in great Meaſure their native Heat, and uſual Dimenſion, as in the Time of Health. His Face alſo, which before looked bloated with his Cough, and his Countenance, like that of one half ſtrangled, beginning to put on a much whoſomer and more lively Complexion; his Appetite ſtrong, and his Diſteſtion good, which before, like that of thoſe miſerable People, who ſubſiſt upon the ſaſhy Recruit of *ſpirituſ Li- quors*, was formerly ſatiated by the Sight only of Viſtuals.

Nor let it be thought that this Recovery was brought about by *Purging* only, becauſe we have mention'd no other Remedies; for on the intermediate Days, he was kept ſtrictly to the following *Chalybeat Eleſtuary* and *Tincture*, in order to ſtrengthen his Stomach, contract the muſcular Fibres, and give, as it were, new Life and Vigour to all Parts, which had, doubtleſs, a great Share in his Recovery, and without which we had certainly miſs'd our Aim.

℞ *Conf. Absynth. Rom. Cochleariæ hortens. ana ℥j.*
Chalybis cum Sulph. pp. Pulv. Rad. Ari, C. ana ℥iij.
R 3
Spec.

Spec. Diamb. f. o. ʒj. Syr. e Conditur. ZZ^{ris} q. f. ut f. Eleēt. de quo sumat. ad Quant. N. M. Mane Hora X^a & V^a Pom. cum Cochl. v. vel vi. Tinctura seq. superhaustis.

Rx Summit. Absynth. Rom. ʒss. Cort. Aurant. extr. Siccāt. ʒij. rad. Gentian. Sem. Coriandr. Cardamom. ana ʒj. infunde in Aq. F. q. f. pro Colatura ʒxij. cui adde Aq. Absynth. mag. C. ʒiv. & f. Tinctura ad usum supra ordinatum.

This, and his *Oxymel* Mixture at Night being continued most Part of the Time.

His Diet and whole *Regimen* was the same with that prescribed for other *Hydropics*, composed of dry Foods or Meat well dressed, so soon as he could eat any; his Breakfast and Supper dry Bread, or Biscuit; and in Regard of his Habit or Custom of drinking strong Liquors, he had half a Pint of strong Wine allow'd him daily, and sometimes more; besides his Tincture, which, for the same Consideration, was made warmer than usual.

Lastly, for preventing of Relapse, I directed a *Decoctum Ligni Guajaci*, half a Pint to be drank twice a Day, after leaving off his *stomachic Tincture*; and that if he found any Return to his Swellings, as he might expect, if he took to his old Method, he should have Recourse to the following *Diet Drink*, and purge once a Week with two or three Ounces of the *Tinctura sacra*.

With these Instructions he went down into the Country to see his Friends, and there, betaking himself to a Course of Life, requiring more Exercise and less Drinking, he made me a Visit the Year after, appearing strong and hail as ever, and with a sanguine or ruddy Complexion, assuring

ing me, he had observed my Directions, and drank several Gallons of the Drink, which was the following.

R. Rad. Irid. nostr. Cort. Median. Sambuc. Rad. Enul. Camp. ana ℥ij. Raphan. rustic. ℥j. Summit. Genistæ Fol. Cochlear. Hort. ana mij. Absynth. Rom. mj. Bacc. Juniper. Sem. Dauci Sinapios, ana ℥j. incisa ac contusa f. Sacculus pro quatuor Congiis Cerevisiæ, cujus (finitâ fermentatione) bibat loco potûs ordinarii.

We come now to another of the *watery Tumours*, namely *Hydrocele*, which will introduce our Discourse of *Herniæ*, among which, by some, this is often numbered; although by Reason of its Affinity to the other, and in Regard it is oftentimes attendant upon the last mentioned, as also upon the *Ascites*, formerly taken Notice of, requiring the same *Regimen* in all Respects, as an Effect of those dropfical Swellings, we have placed it immediately under the foregoing.

Indeed, where the Body is thus deluged, especially the *Abdomen*, no Wonder the *Scrotum*, like a Vessel placed under a Cistern of Water always leaking, should, by its Situation, receive the dripping *Serum* from the Cavity above it, and retain the same as in a Bottle, to which it is not unfitly resembled, when it happens to be distended to the like Dimensions.

By the Name *Hydrocele*, we commonly understand a dropfical or watery Tumour of the *Scrotum*, by some termed *Hernia aquosa*, or a watery Rupture, which I think less proper, and therefore I should choose rather to give it that of *Anasarca*, vel *Hydrops Scroti*.

It is known by its white, transparent, or shining Colour, pitting like the other anasarcaous Swelling, and in which the Water, upon shaking the Part, is often perceived to fluctuate.

The Cause. The Cause of this Disease, when complicate therewith, is the same as of *Anasarca* and *Ascites*, being, as aforesaid, very commonly the Produce of this last, falling down from above, and admitting the like *Prognostic*; but when single, and alone, as is sometimes found in Infants, it ariseth from some Compression or Contusion of the Parts, by which the serous Humour ousting forth the ruptured Vessel, and detained by the Membranes, particularly that called *Dartos*, occasions the Tumour.

The Cure. In the *Cure* the same general Method is to be taken, as was observ'd for the *Hydrocephalus*; by some warm and powerful Discutient to set open the Pores, and give a breathing to the watery Humours therein contained, which being effected, one more restraining may be necessary to strengthen and corrugate the relaxed Bag, and shut up the Mouths of the weeping Vessels.

But if the Disease be too powerful to be this way overcome, the *Scrotum* may be scarified, as is observed also in that Tumour.

Some Practitioners draw a *Flammula*, or Skein of Silk, like a *Seton*, in the depending Part of the *Scrotum*, by which the Serosities are drained off; others more rationally apply a *Caustic*, and discharge them by the *Eschar*, but these, especially the former, are liable to *gangrene*, by Reason of the languid Heat, and the putrid *Serum* continually dripping through, hinders the Digestion of the Wound or Ulcer: Upon which Considerations, others prefer the Puncture in several Places to let out the Water, and after a
good

good stiptic Fomentation or *Cataplasme* to strengthen and prevent Relapse.

But if the Dropsy of this Part is accompanied with an *Anasarca* of the rest, or with *Ascites*, wherein the *Penis* is usually affected, and a *Cry-stalline* appears upon its *Præpuce*, as fell out in the History foregoing; 'tis then but seldom to the Purpose that we empty the lesser Vessel set under, whilst the Cistern overflows above, and runs thereinto. For he, who pretends thereby at all Times to cure this kind of Dropsy of the Cod, is little wiser than one, who should attempt to let out all the Water of a Rivulet through a Trench cut for that Purpose, whilst the same is constantly supplied by an inexhaustible Spring above.

In these Cases then, the Dropsy of the Belly must be regarded, and the accumulated Waters thence also emptied by proper *Hydragogues*, or *Diuretics*, as shall seem suitable to the Physician's Judgment, and the Tone of the Blood confirmed, the Fibres also so strengthened, that a farther or future Supply may be cut off.

I said either by *Cathartics* or *Diuretics*; there *Some* being some best emptied by the former, whilst *Dropsies* others, who cannot suffer so great a Shock, are *best cured* to be attempted by the latter. *by Cathartics, others*

For Instance; where the Bowels by the putrid *Serum* long stagnating round the same, at length *by Diuretics* are corrupted, or the Liver *scirrhus*; or where the Patient is of advanced Years, or by long and *chronical* Sickness reduced, his Heat and Appetite destroyed, and his Spirits not so much eclipsed, as absolutely exhausted, the more you purge, especially with the strong *Cathartics* usually administered by Quacks at these Times, the more you will aggravate the Case, the more you will loosen

loosen the *Compages* of the Blood, and hasten the sick Man's Destruction. In these Cases, *Diuretics*, with some corroborative *Stomachics*, intervening, are what principally you must rely on; some Forms of which I have already, and shall give others presently: These, I say, we must have Recourse to in such Cases, as exciting the least Disturbance in their Operation.

But where the Tone of the *Viscera* is more firm, and not yet injured by the stagnant Waters, but some broken *Lymphatic* has furnished an Inundation, or the Blood itself is prone to run out into a serous *Illuvies*; *Diuretics*, some of them at least, given at these Times, will farther loosen the *Compages*, and by their Salts put the same into a greater Fusion or *Colliquation*: When some brisk *Cathartic* is now indicated to empty speedily, and after the *Bitters* and *Chalybeats*, as before, to strengthen the Tone of the Blood, and restore due Tensility to the Fibres.

Observe, that in all Diseases of this Part, the *Scrotum*, whether occasioned by Water or other Humour, by a fleshy Substance, or any Part preternaturally falling down from above, the same must be supported with a suitable Bag-Truss, which will not only secure the Applications, but by taking off the swagging Weight of the Part, render the Patient much easier in his going about.

HIST.
xxxvii.

An elderly Person of a full Habit, long subject to an *Asthma*, grew at length *Hydropical*, and seemed likely by the Increase of his Bulk round the Waste of falling into an *Ascites*, the Water emptying itself from above, having filled the *Scrotum* to a great Bigness; the Skin thereof being thereby put upon the utmost Tension, and rendring the Tumour very transparent, the *Penis* also

also buried by the Stretch, that nothing more than the Extremity of the *Prepuce* was discoverable.

Which Case, as it was circumstantiated, I undertook only to palliate, after the following Manner.

Finding him, through Age and Imbecillity, otherwise incapable of Evacuation by any *Cathartic*, the Disease seeming to arise from the Defect of natural Heat, with the Poorness of the Blood itself, which must have been farther broke and weakened by such Medicines, I essayed therefore all I could to derive the serous Extravasation by the Passages of the Kidneys, at the same Time warming and invigorating the Parts thus:

℞ *Summit. Absynth. Rom. ℥℔. Flor. Anthos. Sem. Sinapios, Baccar. Juniper ana ℥ij. Rad. Galang. Sem. Cardamom. min. ana ℥j. Cinerum Genistæ ℥ij. infunde frigide per 24 Horas, in Vini Rhenani ℔ij.*

℞ *Lixivii suprascrip. Filtrati, ℥ij. Aq. Absynth. mag. C. ℥℔. Syr. Chalyb. ℥ij. m. f. Haustus Mane Hora X^a, & V^a Pom. quotidie sumendus.*

And betwixt whiles, for the farther promoting a free Discharge by Urine, four or five Spoonfuls of the following Mixture.

℞ *Aq. Fœnicul. Petrosel. ana ℥iv. Raphani C. ℥ij. Aceti scillit. Syr. de 5 Rad. ana ℥j. m.*

Every third Morning he took the following Draught, forbearing other Medicines at these Times, not so much with a View to his being purged thereby, as to fortify his Stomach, and promote the due Digestion of his Aliments: So that

that the chylous Juice being rightly assimilated, the Encrease of the pituitous Humour stuffing up the *Vesiculæ* of the Lungs, as well as of the whole Habit in general, might be cut off and prevented.

℞ *Tinct. Sacræ cum dupl. Spec. Extr. ʒij. Aq. Absynth. M. C. ʒʒ. m. f. Haustus.*

At Night when he lay down, he swallowed two Spoonfuls of this expectorating Mixture.

℞ *Aq. Cinnamom. Hord. ʒij. Mirabil. Oxymel. scillit. ana ʒj. m.*

Whilst this Method was prosecuting internally, I was at the same Time fomenting the tumefied *Scrotum*, with a strong Decoction *ex Fol. Absynth. Abrotan. Rorismar. Pulegii, Lauri, cum Flor. Chamæmel. Sambuc. Bac. Junip. & Sem. Cymin.* thickning one half of the Colature with *Farina Fabar.* and applying it as a Pultis after the Use of the Fomentation, which was kept up by a large Bag-Truss: But perceiving little Advantage gained hereby, the *Serum* continuing dripping from above as fast as we could discuss, when I came to examine the outer Teguments, I found them much less thickned by the *Anasarca*, or watery Humour usually accompanying the same, and giving rise to those doughy Impressions, but rather tense, renitent and shining, as in the true *Ascites*; wherefore instead of scarifying, having provided a *Trochet* for the Purpose, I thrust the same into a depending Part, on one Side of the Seam, and drawing forth the Piercer, discharged a large Quantity of *Serum*, till the *Canula* being choak'd by the Folds of the *Dartos*, no more would issue forth. Upon which extracting the same, I perforated the other Side,

Side, and after fomenting, dressing up with a Digestive to the Puncture, and the *Cataplasm*, as before, leaving out some of the Discutients, and adding Restringents in their Place, preparing the Decoction likewise with the Smith's Water, and red Wine, in the Room of the common Water, in a Day or two the *Scrotum* seemed to corrugate, or purse up, though still some of the same Liquor was observed by the Fingers to fluctuate therein; yet was I not without some Hopes of gaining my Ends, and dissipating the Remains, observing him so much mended in his Habit, his Belly almost reduced, his Breath much easier, his Urine better coloured, and made in larger Quantity, his Appetite also much greater than for some Months past: But nevertheless, in about a Fortnight's Time, the *Scrotum* was filled again, and appeared almost as tense as formerly.

Wherefore, to prevent any Return of this Water into the Bag, I applied a strong *Caustic* on each Side, near the Parts I had before pierced, making an *Eschar* of the Compass of a Shilling; which is the surest and safest Method of proceeding, as less liable to *gangrene*. And after a Separation of the *Eschar*, whilst the Ulcers were carefully dressed up with a good warm Digestive, *ex Linim. Arcæi cum Ol. Terebinth.* the Waters were entirely drained off, in about a Fortnight's Time, and the same were admitted to heal up; the Bag contracting to its former Dimensions, the Supply also being cut off by new Life and Vigour, as it were, imparted to the Mass of Blood, he has now, after several Years past, remained, even beyond my Expectation, free from Relapse.

Of

Of the HYDROPS TESTIS.

Hydrops
Testis,
with its
Signs and
Cure.

There is yet another watery Tumour, though not immediately in the same Place with the former, yet encompass'd by the same outward Teguments or Clothing; I mean the *Hydrops Testis*, or Dropsy of the Stone, which, if the serous Contents were derived by the *Process*, or Productions of the *Péritonæum*, as in the *Omental* and *Intestinal*, might more properly be termed *Hydrocele vel Hernia aquosa*, than the other we named *Hydrops Scroti*.

But this Disease is found frequently to take its Rise from some Contusion, or Compression of the *Testis* itself, whilst the *Processus* is unconcerned; for here the *Seminal Vessels*, together with the *Suspensorium*, the *Cremaster* may be plainly felt, contrary to what happens in the *intestinal* or *omental Hernia*, where the same are confus'd by the falling down of these Parts into the *Scrotum*.

The admirable Artifice of Nature, in the Fabric and Texture of this Part, less heeded, will be found upon a nice Enquiry, to surmount that of many others; nor will it appear strange, if we consider the Excellency and Nobility of the Use thereof, viz. the Propagation of the *Species*.

Its Body, by some of our modern Anatomists, has been, not unfitly, compared to a Ball of Thread or Silk wound up together close: The *Epididymis*, which is but a small Appendage, I once my self unravel'd to above two Yards in Length, and yet, I am satisfied, great Part was broken off: To how much greater then must

he whole Bulk of the *Testis* be extended, if
 carefully drawn out to its utmost Longitude?
 Bellini says, the complicated Artery of the hu-
 man *Testis* is three hundred Ells long: *De Graaf*,
 and *Taury*, that the *Epididymis* alone measures
 five Ells: No wonder surely, that a Stop should
 then be met with oftentimes of the circulating
 fluid, by some outward Accident as well as in-
 ternal Disorders; and that Tumours should thence
 emerge, altho' the Malady now before us seems
 rather owing to the Breach of some *Lymphatic*,
 or to a serous Humour effused by the Arteries of
 the investing Membrane of the *Testis*, which gra-
 dually increasing, distends the *Vaginalis*, or out-
 ward proper *Capsula*, to such Magnitude at some
 Times, that some Pints of Liquor have been
 thence discharged.

The *Hydrops Testis* is distinguished from the
 same in the *Scrotum*, in that it lies commonly on
 one Side, unless it happen that both *Testes* are af-
 fected, a Case uncommon: There is also more
 Pain from the Tension of the tender Part of the
Testis in the first, than from the Stretch of the
Dartos, and outer Skin of the *Scrotum* in the last.
 The Weight seems greater and more oppressive
 to the Sick, and the Fluctuation is apprehended
 deeper by the Surgeon; nor is the Surface so
 diaphanous, the Water lying more remote.

Again, in the *Hydrops Scrotalis* there is com-
 monly an *Ascites* of the *Abdomen*, at least an
Anasarca on the Thighs and Legs: Whereas, in
 Dropsy of the Stone, which is *protopathic*, or
 primary and original Disease of this Part on-
 ly, there are not such Tumours of the other
 parts.

Farthermore, it is distinguished from the *Sar-
 cele*, or fleshy Rupture, I think improperly so
 called,

called, in this, of being less solid to the Touch, also less ponderous in the Balance of the Hand, supporting the same underneath, but more pellucid or transparent; besides the Pressure of the Fingers on each Side, will discover a fleshy Substance from a Liquor shut in, however renitent; which, if less so, or not too much distended thereby, may be observed to undulate, or if more, is discoverable by its Transparency; in order to which a lighted Candle is held on the Side opposite to the Eye in a dark Room: But this Experiment I look upon as less certain, for so many Teguments intervening, the Reflection will be much obscured thereby; besides, the Contents themselves are not always pellucid, or being sometimes mixed with a brownish or darker Serum, will render them more opaque, or less transparent.

Farther it is differenced from the *Hernia ventrosa*, so called, in that the latter is sometimes less, and at others bigger, having little Weight, but light as the imprisoned Contents, and attended usually (unless the Membranes are much inflated, and the Tension great, from whence the same ariseth) with less Pain.

Lastly, you will know it from the other *Herniæ*, by the Clearness of the *Processus*, or Production of the *Peritonæum*, from the *Inguen* down by the *Cremaster* Muscles, which, in the genuine or true *Herniæ*, are always enlarged by the prolapsed Body; more especially to be perceived, if the Fingers are laid close down upon this Part, and the Patient, in the mean Time either forces a Cough, or is put upon Sneezing.

The Cure.

We come now to the Cure of this particular Dropsy, from whence the *Prognostic* may be inferred

ferred, which is first of all to be attempted with Discutients, such as were directed for the *Hydrops Scroti*. But indeed the Tunic, which envelopes the Water, being very compact, and the Medicines having also the other Teguments to pervade, 'tis but seldom, unless in Infants, and young Children, that the Disease gives way thereto; and if it does not, there is no Remedy, but by the Puncture, or *Paracentesis*, which is, by penetrating the common and proper Coats, and with a *Canula*, letting out the *Serum*, after drying up the Residue, as we directed but now for the Dropsy in the Cod.

But here lies the Misfortune, that notwithstanding we have emptied the Bag of this Liquor, yet being unable to come at, and solder the leaking Vessel, as it happens to the *ascitical* Patient, the same is liable to fill again, and require the Operation to be repeated; upon which Account, those who are not content with this palliative Cure, may have the Tumour opened by a *Cauteric* on one Side, strong enough to go through, and make way for the Discharge; and after the *Eschar* is cast off, if the Sinuosity will not unite, the same is to be dilated, digesting away the *Cystis*, whilst the Wound is treated with the greatest Judgment, as shall be discoursed hereafter. These Cases indeed requiring the utmost of our Skill, being apt to degenerate into ill-condition'd Ulcers, and oftentimes incurable *Fistulae*, preternatural Bodies being found sometimes adhering to the spermatic Vessels, or to the Body of the *Testis*, no otherwise to be removed than by extracting the Stone itself, which should teach us to be very cautious how to deliver a *Prognostic* of these Tumours, or undertake the real Cure thereof.

HIST.
xxxviii.

A young Infant, presently after it was born, was observed by the Nurse to have one of its *Testicles* much larger than its Fellow: Upon which they sent for me to take a View of the same; I perceived the Body of the right *Testis* as large as a Pigeon's Egg, the *Scrotum* discoloured, with a light Sugillation in the Manner of an *Echymosis*, whence I conjectured its Rise might happen by some Pressure, or other Hurt in the Birth, there seeming through the *Scrotum* some Fluid extravasated within the *vaginal Tunic*.

In order to disperse the same, I directed a *Fotus* of the *Decoct. Flor. Sambuc. Chamæmel. Fol. Ros. cum Flor. Balaust. in Lacte Vaccin.* thickning some more with the *Farina*, and applying it as a *Pultis*.

In the mean Time I purged it, as the tender Age could bear, with a few Grains of the *Pulv. Rhei cum Syr. Rosar.* but the Tumour still encreasing, after some Months, when they had consulted others, some of whom had persuaded the Opening, others dissuading therefrom, they sent for me again, who, after mature Deliberation, thrust up a Spear-pointed Lancet into the *Vaginalis*, and discharged about four Ounces of a red-dish *Serum*, like the Water of wash'd Flesh; after this, the Tumour instantly subsided, and the *Testis*, which had therein fluctuated before, appeared now of its natural Bulk and Figure.

The Puncture being dress'd up with my Digestive, I ordered a restraining *Cataplasma* of the *Fol. Rosar. Flor. Balaust. Cort. Granat.* boiled in Claret and the Steel-water, adding a little Bit of Alum, and sprinkling some *Pulv. Boli Arm.* thereupon, supporting the same by a fine Dimmety Belt, and a Bag as usually, with its Straps fastened to the same.

Which

Which Method being some Days continued, the outward Tunick, with the Parts more inwardly, recovering their Tone, and no more of the Liquor effused, the Child got clear of the Accident, and never, that I could hear, relapsed.

A Person of a middle Age, and otherwise of a seemingly well constituted Habit, by a Bruise, as he supposed, from his Saddle in riding, tho' it was some Months after, complained of a Sort of gravative or heavy Pain, with a Fulness on one Side of the *Scrotum*: For Relief in which, he made his Application to several Practitioners, who had diversely treated him; some taking it for a *Hernia humoralis*, had ordered *Purgatives* and *Vomits*; others for *Wind* and *Water*, had applied *Discutients* of sundry Sorts: Others lastly, for an *intestinal Rupture*, incapable of Reduction.

HIST.
xxxix.

Thus, after two Years, despairing of Help from the *Prognostics* and Experiments of ignorant People, and contenting himself by supporting the Weight of it, with a Contrivance none of the most artful, instead of a Bag, the Part growing still fuller and more cumbersome, a Person, who had been my Patient upon another Occasion, came along with him to me.

I perceived an oblong Tumour hanging down on one Side of the *Scrotum* like the *Testis* of a Bull, but much larger, stretched out from the Bottom, and growing narrower at the *Processus*, which yet was high, and full up to the *Inguen* on that Side, as if the *Ileon* slipping down had given Rise thereto, and which had probably deceived those who had so mistaken it.

Upon a strict Enquiry, and pressing the *Tumour* all round, although the outward *Tunics* were rendered tense and renitent by the Distention, yet was it manifest, some Fluid, or extravasate Liquor was shut up therein; which, tho' I could not promise, upon emptying, should not fill again, yet I made no Scruple to acquaint him, that he might be freed from his Burthen without any Danger, and with but little Pain: When calling for a large Candle, and shutting out the Light, I tried, by placing it behind, to observe if there were any Reflection through, having before, by a Contrivance of Tin planish'd, so inclosed it, that no Rays could scatter; but I cannot say, that I had much Assistance from the Experiment, whether by Reason of the great Bulk of the Tumour, or the *Opacity* of the Liquor itself, by its less Transparency not suited for reflecting the Light, as at other Times.

Notwithstanding this, being assured in my self, that the Contents were liquid, I offered to empty the same instantly; but he took a little longer Time to consider of it, and returning the next Day, without any Preparation of his Body, which in these Cases I think needless, I thrust up a Lancet at the Bottom, as less painful than the Piercer in the *Trochart*, till finding a Liquor issuing out by the Sides thereof, I withdrew, and passed in a *Canula*, with a two Inch Pipe, extracting thereby $\frac{1}{2}$ lbs. of a brownish *Serum*, like small Beer, at the Close issuing out more thick and dreggy, however through the Pipe, which I gradually retracted, and pressing all about, till the vaginal Tunic, or *Sacculus* containing it, was quite emptied; then taking the Pipe out, and dressing up the Puncture with my Digestive, I
wrap

wrapt up the flaccid Bag with a double Flannel, exprefs'd from hot Claret.

Many prefer the *Trochart* to the Lancet, as carrying along with it the *Canula*, at the same Time that it makes the Perforation; besides, they object the Difficulty of passing in the Pipe, after drawing forth the Lancet, by Reason of the Tunics falling over each other, and denying so ready Admittance: But if the *Scrotum* is pressed forward from above, and kept in the same Posture in which the Wound was made, especially if by a full-pointed Lancet, this Difficulty will be removed; but in this, however, let every one use his Liberty.

The next Day I ordered a *Fotus* prepared of a strong Decoction of the *Cort. Querc.* in order to strengthen the relaxed Fibres, and purse up the Tunics so lately under their preternatural Dilatation, and, if possible, to prevent more of the same Liquor from Extravasation. I likewise purged him once a Week, with a Spoonful of *Tinctura sacra* over Night, and half a Drachm of *Pulv. Jalapii* in the Morning, with Hopes of keeping under the serous *Illuvies*, or to divert its Course another way.

But whoever rightly considers the Source of this Disease, from some broken *Lymphæduct*, or by Reason of the obstructed Progress of the Blood, not readily passing the meandrous Windings of the Vessels, without letting go some serous Particles, together with the Number and great Compactness of the containing Coats, particularly the outward proper one called *Tunica Vaginalis*, will see little Reason to hope for much Advantage, either from *Chirurgery* or *Physic*. And thus indeed it fared with our Patient; for although he seemed perfectly free and easy the first

Week or two, yet in less than three Months, he returned to me with near half the Quantity of Liquor I had before let out, which, now upon the Shock, did palpably gurgitate. I then advised him to let it alone, only supporting it with his Bag-Truss, till it again arrived at its former Magnitude, when I would consider what could be done farther for his Cure.

At three Quarters of a Year's End, from the first opening, he came with an additional Complaint of great Pain and Weakness of his Loins, in Company with a Gentleman, a Foreigner, who, by his Discourse, I perceiv'd had been conversant in Practice, and was lately come out of one of the Hospitals in *France*. He spoke *Latin* fluently, as well as *French*, and giving a handsome Account of the Subject, I proposed laying on of a strong Caustic, and after the Water was emptied, to endeavour Digestion and Agglutination of the same; or else, slitting up the *Scrotum*, to tie up the *suspensory Cremaster*, with the *spermatic Vessels*, and making Ligature thereon, excise below, and take them off together with the *Testis*: But I would enterprise neither without a Consultation; for as I could not warrant a Security from a fistulous Ulcer by the first, so neither was the *Castration* absolutely safe, considering the great Fulness of the *Inguen*, together with the *Lumbago*, which I had observed prognosticating ill, as well in this, as in the *Hernia carnosa*.

After which Conference, the Patient apprehending Danger either way, and the Success uncertain, declared, he would be once more tapt, and wait the Issue a Year longer: Accordingly his Friend preferring the *Trochet*, the same was forced in; when perceiving more Pain than formerly,

formerly, he drew back with a sort of Spring, just as the Piercer was forcing through the *Vaginalis*, and refused re-entring the same, choos- ing rather to submit to the Lancet, which, he said, was no more than letting Blood, and thrusting in that Instrument as formerly, passing instantly after my *Canula*, we discharged such another Quantity of a somewhat clearer *Serum*, only tinged by the Blood flowing down with it from the Wound; when dressing up again, he went back with his Friend from my House, and since that I have heard nothing from him, tho' I could not see, but that in Time he might stand in as much Need of a third Puncture, as he had of a first and second.

A Gentleman of my Acquaintance, when he had for some Years past observed his left *Testis* gradually enlarging, without any previous Accident, that he knew of, contributing thereto, at Length communicated his Case to me, who, when I had maturely considered the same, declared it an *Hydrops Testis*; or that the Contents of the Swelling were a watery Humour lodged between its proper *Tunics*, viz. the inner *nervous*, called *Albugenia*, and the outward *membranous*, named *Elitroides*, or *Vaginalis*. Hist. xl.

The *Tumour* was large, and, as I conjectured, could not contain less than a Quart, if not five half Pints, of the extravasate Liquor, which, having no proper Support by the *Truss*, its Weight and Tension now became very troublesome: Upon which Account I advised him to the *Paracentesis*, and by the Encouragement I had given him to undergo the same, he applied himself one Evening to that noted Artist, Mr. *Edward Green*, who, handling the Part, and trying it by the Candle, concluded it to be what I had re- presented;

presented ; when immediately, without more ado, entering the *Trochart* at the Bottom, and extracting the *Piercer*, he drew forth by the *Canula*, near three Pints, by Computation, of a serous Humour of the Colour of small Beer ; and having emptied the Bag, taking out the Pipe also, he laid on a Pledget of a *Digestive* on the Puncture, with a *Diapalma* Plaister, under a small Bag *Truss*, and so dismiss'd him.

But whether by the Shock of the Coach he had taken to go Home, his Fear beforehand of the Operation, the Heat of the Season when it was enterprised, or the emptying so large a Quantity of the Fluid, it so happened, that he grew faint and languid for some Time, complaining of Weakness in his Loins, a Sort of Listlessness, as we say in common, and a cholical Gripping in his Bowels : For which I directed a light Infusion of the *Rhad. Rbei cum Sem. Coriand. ac Sal. Tart.* adding to the Colature, \mathfrak{zj} . of the *Syr. Ros. Solut.* but this, however gentle, would not suit his *Temperament*, so that in its Place I substituted *Pil. Stomach. cum Gum. cum quarta Spec. Diamb.* of which taking three or four each Night, or every other, as he found Occasion, the sharp Humours were emptied *περίεργον*, and his Pains wore off ; but still a Languidness attending, and having, as I had Reason to believe, a great Share of *Hypochondriacism* admix'd, I prescribed a corroborative Electuary, *ex Conf. Anth. Flav. Aurant. Absynth. Rom. Nuc. Mosc. Condit. Pulv. Rad. Ari & Spec. Diamb.* much after the Manner you will find inserted for *Oedema*, to be taken the Quantity of a Nutmeg twice a Day, drinking four or five Spoonfuls of a *chalybeat* Bitter after each Morfel, and upon them both half a Pint of Ger-

man

man Spaw-Water; the rest of the Flask he finished before Noon, reserving one half Pint for his Dinner, that he drank with a little Wine, which quickly recover'd the Tone of his Blood, giving new Life to the whole *nervous System*. Yet after this, towards the End of Summer, he lost Ground again, seeming to grow hectic, with a Cough, and profuse Sweats, for which I now directed an Electuary, with the *Conserv. Rosar.* and *testaceous Powders*, to be taken with the *Ass's Milk*; also four or five Grains of the *Pil. è Styrace*, in one single, or two small ones, with a Spoonful of balsamic Syrup, going to Bed, which not only mitigated the Symptoms, but by laying out of Town, before the cold Weather came on, removed also these Complaints.

It may here be questioned by some, whether these Symptoms were Consequents of letting out this Liquor from the *Testis*? Which I think, are by no Means rationally to be inferr'd.

His Surgeon was of Opinion, that he might, by way of preventing the Disease returning, be purged between Whiles with the *Gutta Gamba*; but having, as I told you, experimented *Rhubarb*, the most mild of the Tribe of Purgatives, and found the same would not agree, the Disorder of his Bowels still encreasing, I was fearful of trusting their feeble Tone with so rugged a Medicine; nor could he give him any great Expectation, that it would not fill again, whatever Remedy he made Use of.

It was my Advice to farther the same Intention, that some restraining *Cataplasm* and *Fotus* should be used immediately upon letting out the Water, like what you will find directed, to promote the corrugating or pursing up the *Scrotum* and

and *Dartos*, after discharging that of the *Hydrops Scrotalis*, called by the Surgeons *Hernia aquosa*, but whether they were then made use of, I am not certain, the Surgeon telling him, it must take its Course, and that after three or four Days he might suffer it to hang down as before. But at the End of so many Months, he observed it filling again; yet giving little or no Disturbance, he went on, without taking any Medicine upon this Account: And truly, what was there to be done, or what *Prophylactic* have we seen in these Cases, where no Evacuation can be contrived to empty this little *Puddle*, any more than that of the greater *Pond* above, in the true *Ascites*, unless the *Trochart*, or a Lancet, with the *Canula* immediately introduced by the Apertion? For if here, as there, we purge with *Lenients*, we trifle and do nothing; if with the stronger *Hydragogues*, as the *Succus Ebuli*, vel *Ireos*, the *Rosines* either of *Jalap* or *Scammony*, the *Gamboge*, much more the *Elaterium*, we shall only farther break the *Texture* of the Blood, destroy its *Balsam*, now more than ever wanting to cement or soder up the leaking Vessel, and augment the Disease we pretend to remedy. The like by *Diuretics*, fusing the same, and dissolving its *Compages*, when the serous Inundation, instead of taking to the *renal Glandules*, will be intercepted and ouse forth, wherever they find a Passage, falling into either Cavity, and encreasing the Malady. If we attempt the Cure with *Diaphoretics*, by still farther rarifying or attenuating the Mass, and quickning at the same Time the Motion of all the Fluids, we make Room even for those Particles to slip through, which, perhaps, had not otherwise found the Way, and so fill up the Pond faster. Lastly, he that shall

set

set upon this Disease by *Emetics*, is little wiser than the Surgeon, who, to hasten the Union of a broken Limb, is daily handling thereof, and shaking it about, to find whether it is grown fast; since if *Nature* even had found some Method to agglutinate, or otherwise to stop the Holes, whence the Water fell through (and it seems indeed her Work alone, if ever it be accomplish'd) such a Shock must be given in the working of these Medicines, as would infallibly undo the Work, and set open the Breach afresh: So that, in short, of what Kind soever the *secretory* Duct may be, whether *Lymphatic*, or other Vessel ruptur'd, that shed the Water into either of these Receptacles, we have, I think, no other *excretory* one to carry it off, unless the Pipe of the *Trochart*, by the *Paracentesis*; and to tap afresh, as often as they refill, till *Nature*, as at some Times, finds a way of consolidating the uncomeatable Breach, or by some other Secret unknown to us, stops up the same.

The wicked and vile Attempts of some late Pretenders to the Cure of *Dropsies*, by the strong *Cathartics*, with the repeated *Man-slaughters*, not to say, *Murthers*, thereby committed, where the *Viscera* are in a manner rotten, and their Deaths consequently accelerated by the exhibiting thereof: These, I say, if not *living*, yet are *posthumous* Evidences of the Success attending; and if some few, as we have formerly remarked, thro' a lucky Hit, or rather providential Interposition, have escaped, under their *empirical* Remedies, many Scores, in the mean Time, have been destroyed, and some of these even under the Operation, as I have found, when call'd upon to see their *Exeunt*.

Begging

Begging your Pardon for this Excursion, which, I hope, will not be found useless, I am to inform you, that at the End of about twelve Months, the same *Testis* was very much increased, though not yet to the Magnitude as before, so that he went on six or eight Months longer, about which Time it was arriv'd at its former Depth as well as Circumference; and taking now the Advantage of a fitter Season, viz. *Feb. 1721.* by Appointment, Mr. *Green* met me at the Patient's House, where, after trying the Reflexion of the Candle, which was discernible, though obscurely, through the contain'd Fluid, whilst his Son, a very judicious young Gentleman also, with both his Hands pressed from above, to increase the *Tension* of the circumambient *Teguments* below, and facilitate the Penetration, the Father push'd hard up at the Bottom with a *Trochet* made for the Purpose, having a smaller *Piercer* and *Canula* than that commonly used for the Perforation of the *Abdomen* in the *Ascites*; and entering about an Inch and half, he drew out the *Piercer*, discharging more than a Quart of Liquor, the Colour as at first; the young Gentleman still pressing forward, till the whole was drained off. After this he was dressed up, and I advised now also, that he would apply a warm Flannel expressed from some *stiptic* Infusion, such as that *ex Cort. Granat. Flor. Balaust. Fol. Ros. rub. in part. æq. Vin. rub. & Aq. Ferrat.* to be renewed Night and Morning, and worn in his Bag, of such Size as to fit always tight, and close up to the Part.

What the Issue of this second Apertion may be I cannot say, but am inform'd, it fills again.

I did,

I did, I must own, propose to Mr. *Green* the *Castration*, as the only Remedy, in Case of its continuing to refill after this manner; but he remurr'd against that, by Reason the *Testis* must be thereby destroyed, which is most certain; yet of what Use such a Stone was like to be, I could not comprehend, admitting it thus always swimming in a Puddle of Water, with the attending stretch of its outer proper *Tunic*, and the Pain thereby occasion'd.

It was that Gentleman's Opinion, if Occasion should be given, to apply a large *Escharotic*, strong enough to go through all the *Coats*, by which Means, the *Cicatrix* afterwards so binds down the same, as to prevent any farther Extravasation, which though not depriving the Patient, it is true, of the *Testis*, may possibly render it useless in its Office; and besides the Chance, whether or no the *Breach* may be now solder'd, the Enterprize, all Things weigh'd, will be found, perhaps, as painful and hazardous. I am sure more tedious, than having turned out the Stone, making a Ligature on the Vessels above, and excising the same below, as you will see presently, when I come to speak next of the *Hernia carnosæ*, to which I shall now hasten, when I have first acquainted you, that for my own Satisfaction, so soon as the Liquor was let out, and our Patient dress'd up, I took a Spoonful, and held it a few Minutes over the Flame of a Candle, where being sensible, give me leave to say, of the Heat, before any Part was evaporated, the whole grew strait, *gelatinous*, and immediately after took the Consistence of the White of a rear poch'd Egg, but of a more obscure Colour, like what I have observed to flow from *Fistula's* in and about the Joints, or other nervous Parts,

called *Synovia* by Practitioners, and which indicates plainly, whatever Vessel may, or does furnish the Supply, whether *Artery*, *Vein*, *Nerve*, or *Lymphæduct* (tho' most probably one of the two last) it is different from the common *Latex*, and truly of the *nutritious* Kind.

HIST. xli. A young Gentleman, whilst I was revising these Sheets, offered himself to me, in Company with his Surgeon, to have my Sentiments of a swelled *Testis*. He had, I perceived, upon him, a *Gonorrhæa*, and on that Account, before I had better informed myself, I concluded the former to be a *Hernia humoralis*, till more narrowly inspecting, I perceived a manifest Fluctuation of some Liquid within the *vaginal Tunic*, the *Scrotum* being of its natural Colour, with little or no Pain, unless from the Weight and Tension. For my farther Satisfaction I tried it with the Candle, and concluded, by some Degree of Translucency, that it was an *Hydrops Testis*.

Having purged off his *Gonorrhæa* with *Leni-ents*, he came to me some Months afterwards, desiring I would let out the Contents of this swelled *Testis*, as I had promised; when accordingly, without farther Hesitation, his Surgeon bringing with him a small *Trochart*, whilst he press'd from above, I thrust up the Instrument, and drawing forth the Piercer, discharg'd thro' the *Canula* about a Pint of greenish *Serum*, which, as the former, by the Heat of the Candle, grew presently gelatinous. However, I have some Hopes that this will not return, having made no Progress for some Months before the Operation, as to the Bulk of the Tumour, or Increase in Quantity of the Fluid therein contain'd.

Of HERNIA CARNOSA.

Having thus given our Sentiments of the *Hypertroph Testis*, I shall here take Notice of another Disorder incident to the same, by which, not its outward *Tunic* only, but the Body thereof is enlarged in all its Dimensions, by a fleshy Substance, or preternatural Augmentation of its Bulk; and which indeed, I might have observed among the *Sarcomata*, but I rather chose to bring the Diseases of the same Part, at least of this particular one, in View at the same Time, intending it more especially to introduce my Account of the other *Herniæ*, whether *spurious* or *genuine*.

It is called by Authors *Hernia Carnosa*, tho' I think, as unfitly as the *Aquosa* before described. However, retaining the old Name, we define it a *Flesh-like Substance*, at some Times adnascent to some Part of the Body of the Testis, as happens upon *sinuous Ulcers*, or *Fistulæ* thereof, where, after some *Abscess*, or *Apostem* ill managed, its *Tunics* being destroyed, the nutritious Juices are shed round about, and these *Excrescences* are produced, or, as already described of a *glandulous*, the same Kind with the rest, by which, from some Accident of Contusion, &c. its vascular *Compages* is amplified and dilated, and the Stone thereby enlarged through its whole Contexture.

As to the Marks of Distinction between this, and others going under the Denomination of *Herniæ*; the nearest, I think, in Likeness hereto, is that called *Humoralis*, a common Attendant on the *Gonorrhœa*, suppress'd, or untimely restrain'd; of which see more in our *Treatise*

of the *Venereal Disease*: But its greater Weight and Hardness, together with the more gradual Increase, also attending those who never had to do with Women, will to a heedful Observer be a sufficient Direction, that it is not of that Sort; as may also the Freedom of the *inguinal Process* from any preternatural Fulness, or being handled, discovering no prolapsed or interposing Body, inform him that it is no true *Hernia*, or any of those we shall come presently to describe.

The over-grown, and equally enlarged *Testis*, may probably enough derive its *Original* from the slacker or more retarded Motion of the Blood; or by the same moving faster through the Artery, then taken up or returned by the Vein, whence the Particles left at the Pores in the Extremities being carnified, after they have diffused themselves round about must necessarily increase the Bulk of the Stone: And if we consider the Frame thereof, as I have remark'd in discoursing on the *Hydrops Testis*, together with the *meandrous* windings of its Vessels, we might wonder there should not oftner, by Reason of the Fluid stopped therein, arise either this Disease, or an *Abscess* almost as bad; but having said more upon this Head, in our Discourse upon the *Sarcoma*, to which this is allied, I shall present you with a memorable Case of this Nature from *Hildanus*, and that (as fitting) in his Words, afterwards delivering the *Prognostic* and *Cure*.

‘ *Generosus quidam Juvenis, cum Amasiam suam amplecteretur, atque cum ipsa in actu venereo esset, & jam Semen ejaculare vellet, a quodam Cubiculum ingrediente in actu ita deturbatus*

tus fuit, ut semen retrocesserit, retentumque fuerit, quapropter Dolor in Inguine exortus est; & Testiculi intumuerunt. Cum vero morbum propter verecundiam celasset, Dolor in sinistro Inguine paulatim per se remisit, intumefactio evanuit, & Testiculus in naturalem Statum rediit. Circa dextrum vero Tumor remansit, qui successu temporis ingentem Herniam carnosam excrevit. Ego cum aliis magni nominis Medicis in Consilium tandem adhibitus, non solum Carnem circa dextrum Testiculum concretum, verum etiam Scrotum serosis humoribus ita extensum reperi, ut magnitudine capitis Infantis fere adæquaret.

What the Issue of this Case was we have no Account, but one exactly like it I remember, after much Misery undergone, to have occasioned the Death of the unhappy Sufferer.

In giving then our Judgment of this Tumour, and before we enterprize the Cure, it behoveth us diligently to weigh all attending Circumstances.

Thus, if the Stone be unequally hard, has painful Dartings, with turgid Veins, of a livid Complexion, we may suspect, by such its scirrhus Disposition, a farther Tendency to a more malignant and cancerous Quality, and forbear meddling at all therewith: Nay, although it be not so very hard or painful of itself, yet if there be great Complaint of the Back, with Shootings thro' the Procefs, or if this last be affected or concerned therein, these will discourage, in some Measure, the Operation.

Again, in a true Scirrhus of this Part, or which is perfectly indolent, as well as hard, not increasing or incommoding the Patient (as I have seen some

of them) there may be no Necessity for the Operation, nor indeed any other Chirurgery.

But lastly, If the tumefied Testis appear of a mild Disposition, no ways complicated, as above, but chiefly burthensome by its Weight, and hindering the Sick thereby from going about, or to prosecute his Affairs, and the Process at the same Time so disengaged, as to admit thereof, the Cure is hopeful by Excision.

In order to which, having tried the Force of Discutients, either in the Form of Cataplasm, Emplaster, or Fomentation, for some Time ineffectually, as there is not much Likelihood they should be other, and the Disease still encreasing, you must proceed to the Operation, I mean, Extraction of the Testis, called Castration.

Cure by Which is done (the necessary Apparatus provided, and the Patient placed in a fit Posture, rather sitting forwards, and leaning back in his Chair, than lying along) by opening the Scrotum first of all with a Lancet, or the Point of an Incision-Knife, on the same Side with the Stone; after clapping in your Probe Scissars, and cutting up towards the Ring of the Processus: When having made sufficient Way with your Fingers, you are presently to divide the adhering Fibres betwixt the Tunica Vaginalis and the Dartos, till having entirely freed the same all round, you turn out the Testis with its suspensory Cremaster and spermatic Vessels, in like manner freed from any Adhesion, which you are now to tie up, by making three or four Circumvolutions of Silk or Thread (several being waxed together for that Purpose) and fastning a secure Knot, as is practised in parting the Fœtus from its Placenta, upon the umbilical Vessels, dividing here also, as there, a Finger or two's Breadth on this Side

of the *Ligature*, and taking off the Stone, leave the said *Ligature* hanging out of the Wound; which, after a few Days, whilst the same is *digesting*, casts off, the Wound soon after agglutinating, or healing up again.

In the mean time, how easy soever the Operation is, yet must you expect to encounter a *symptomatic Fever*, if you have none of those more fatal Symptoms attending some others; such, I mean, as *Convulsion*, *Gangrene*, or *Mortification*. His Body must be prepared by *Bleeding* and lenient Purgation beforehand; also gentle *Anodynes*; afterwards Clysters upon Occasion, counteracting *Julaps* and *Emulsions* to abate the febrile Heat, and take off the Inquietude, not forgetting the most slender Diet for some Days: Whilst proper *Fomentations* to cherish these *nervous* Parts, and good *Digestives* to the Wound, are carefully to be directed during the Cure.

If the diseased *Testis* be very large, and the Incision consequently so in the *Scrotum*, I have sometimes found it needful to make two or three Sutures in the empty Bag, which hath hastned the Union, and by the Help of a good *stiptic Fetus* at the Conclusion, or after the Wound is well *digested*, and the *Ligature* cast off, promoted the corrugating or pursing of the same.

The *Digestive* I have used myself at these Times, has been the *Terebinth. Veneta cum Ovi Vitello*, spread on Lint, both in the Form of *Dosils* and of *Pledgets*, and after dip'd lightly in the *Linim. Arcei*, melted down with a little *Bals. Terebinth.*

A Weaver near *Spittle-Fields*, of a middle Age, and good Habit of Body, having, from a former Accident, been many Years indisposed with a weighty Testicle, which still growing
HIST.
xliii.

larger, and giving him great Uneasiness in the Time of his working, made Application to a Surgeon of his Acquaintance, who recommended him to take my Opinion of the same.

Having duly considered, I gave it, that the Tumour was a *Hernia carnosæ*, as the same is vulgarly called, or the *Testis* equally enlarg'd in all its Dimensions by some nutritious Juice, first of all let go by the Vessels, and after gradually supplied from the same, growing up to its present State; and, in all likelihood, might still improve to a much greater, if the Stone itself, together with its Vessels, were not removed: For which Reason, considering so likely a Subject as he was for the same, a *sober, temperate Man*, of *good Habit of Body*, the *Process free*, and *no Complaint of the Back*, or indeed any where else; I declared the said Extraction his only Remedy, giving him great Encouragement to undergo the same, since it was manifest no other Method could avail him.

Upon his Compliance, a few Days after, when his Body had been prepared by *Bleeding*, and an *emollient Clyster* over Night, his Friends recommending Mr. *Jacob Babington*, a plain old Gentleman, but an artful Practicer; we met, and placing our Patient for the Work, whilst he on one Side pinched up the *Scrotum* with his Fingers, I entered the common *Teguments* with the Point of my Incision-Knife, and clapping the Shank of my Scissars into the Wound, which was near the Bottom, cut up to the *Inguen*, when immediately Mr. *Babington* thrusting in his Fingers on each Side, tore asunder the adhering Fibres all round, and brought out the *Testis*, which freeing in like manner upwards, where there was any Adhesion in the Way, with half a Dozen
Needlefuls

Needlefuls of Silk waxed together, I took a Couple of Turns close round, streightning the same, as the Midwife does in making the common Ligature on the Navel-string of the *Fœtus* immediately after its Birth; when tying a secure Knot, I divided the *Cremaster* with its inclosed Vessels and suspending *Testis*, weighing eleven Ounces. This done, I stitched up the empty Bag, and left the Ends of the Ligature hanging out of the Wound, having in the Operation lost no more Blood than might seem necessary for relieving the same, and preventing of the Fluxion.

Our first Dressings were Dosils of dry Lint, over which a Pad of Tow dip'd in *Oxycrate*, and sprinkled with *Farina*, without any other than the T. Bandage, which sufficed to secure the same: He was then put to Bed with a Draught of a Pearl *Julep*, and the same Night took an *Anodyne ex Aq. Laët. ʒiʒ. Aq. Pæon. C. ʒij. Syr. de Meconio ʒj. m.* notwithstanding which, the next Day we found him feverish, having had a restless Night, with some intercurring *Rigours*, from those very tender and sensible nervous Parts compress'd by the Ligature; also great Thirst, and Soreness up that Side of his Belly, much increased by a slight Cough, he apprehended he had got by Cold in the Operation.

Upon which Account, it was agreed to take away half a Score Ounces of Blood from his Arm, and for his feverish Heat and Thirst to allow him an Emulsion *ex Sem. iv. fr. maj. cum Amygd. d. excort. in Aq. Hord.* for his Cough the following *Linctus* and pectoral *Apozem*;

℞ Ol. Amygd. d. ʒij. Sperm. Ceti ʒij. incorpo-
rentur simul in Mortario marmoreo, & addendo
T 3 Syr.

Syr. Dialth. & Capil. Ven. ana ℥j. f. Linētus, de quo e fundo Vasculi sumat prælargum Cochlear. subinde vel Tussi infestante superbibendo Haustulum tepesactum Decocti sequentis.

℞ Decocti Peſtoralis depurati ℥i℥. Syr. Bals. Tolut. ℥j. m. f. Apozema.

The *Liniment* here following was likewise directed to embrocate his Belly.

℞ Ol. Lumbric. Unguent. Dialth. ana ℥℥. Ol. Anis. ℥j. m. f. Litus, quocum manu calida, leniuscule foveatur Regio Hypogastrica Mane & Vesperi, Pannum laneum mollem superponendo.

The third Day we met again, not opening the Wound the Day before; when perceiving the innermost Dofil to adhere, we let the same lye still, contenting ourselves with fomenting the Parts all round with a Decoction of the common warm discutient Plants, and a little camphorated Spirit of Wine; after which we dress'd up with other Dofsils arm'd with *Liniment*, and dip'd in some more of the same, melted down with a little *Balsam. Terebinth.* with a large Pledget of the *Liniment* by itself, and the Bandage as before. He still continued hot and feverish, but without *Rigours*, and being costive, a Clyster of the Common Decoction was injected, with ℥j. of *Elect. Lenitiv.* dissolved therein, which procured him a Stool soon after: His *Emulsion* was yet continued with his *Linētus* and *peſtoral Apozem*, his Diet consisting of small Broths and Gruels. On the fourth Day the Dressings were renewed as before, the Wound appearing digested, as well above about the *Ligature*, as below upon the *Scrotum*,

Scrotum, unless that some thick Sloughs in the upper Part somewhat retarded the Work ; upon which I sprinkled the *Præcipit. rub.* which, in few Days more, removed the same.

At the Fortnight's End, or thereabouts, the *Ligature* casting off, the Wound incarned by the Digestive used all along ; that in the *Scrotum* agglutinating also, and the Bag so pursed up, as to stick close to the other Side ; at three Weeks End he got abroad, and soon after into his *Loom*, prosecuting his Business, without Let or Inconvenience ; and after, performing more with one, than he had done before with both his *Witnesses*, his Wife bearing him a Child within the Year after the Operation.

Having given you this Instance of a *Semi-Eunuchus*, if I may so term him, or a single *Castration*, I could entertain you with a Tragi-comical Example of a double one, happening in the same Neighbourhood, and about the same Time.

A poor *Hypochondriac*, or *Enthusiast* rather, HIST. xliii. whether on a Suspicion of his Wife's Incontinency, and thereby to discover the Truth, in case she brought him any more Children, which was the common Rumour, or to punish his own, I never could rightly learn ; but so it fell out, that in a Fit of Melancholy, having shut himself up in his Chamber, without any *Apparatus*, he made shorter Work, with one Stroak of his Razor, taking both *Testes* and *Scrotum* away together : Upon which so great Effusion of Blood from the Arteries ran through the Floor, as made the first Discovery ; the People below hastening up to him, perceived him in a manner expiring by the Loss of Blood, and calling presently for Help, proper *Stiptics* being applied, he

was rescued from the most imminent Danger, and the Wound, after *Digestion*, being brought into a healing Condition; the poor Man ashamed of his late Enterprize, nor daring to stir out of the House, removed his Quarters by Night, and was never after heard of.

Benivenius tells of a Monk, who through a blind Zeal to keep himself honest, cut off the *Penis* close to the *Os Pubis*, from whence he was very near Death by the great *Hæmorrhage*, Ch. 601. *de Abditis*. *Akakia* in his Comment. ad *Art. parv. Galeni* of a poor Baker, suspecting his Wife's Incontinency, cut off both his *Testes*. And *Roussel* of a Bishop seiz'd with this *Rabies Amoris*, as he calls it, that threw himself into a Well (*I suppose, without Water*) where he excis'd in the Author's Words, *omnia ea quæ amoris Morbum causabant*, and bled almost to Death before he was discovered, and taken up from the same. See more of these Examples in *Hildan. Cent. 3. Obs. 87. Zuing. Theat. Vol. 2. p. 358.* The manner of *Eunuchism* among the *Turks*, is set down also by the foresaid *Rousselus, de partu Cæsareo, Sect. 6. Cap. 6.* as also by *Cardan.* in his *Com. in Hip. Lib. de Aere, Aq. & locis, Sect. 62. Text. 19. Wierus Bodin, &c.* But returning to our Purpose.

HIS. XLIV. A Person who had used the Seas almost all his Life-time, and led a very loose one, when after several Years labouring under a fistulous Ulcer on the *Testis*, the Result, as I suspected, of some former *Hernia humoralis* neglected, or through Ignorance treated with *Suppuratives*, by which an *Abscess* ensuing, and the Matter pent in by Tents, had increased the *Sinuosity*, and made way for a *Fungus* to grow up therein, by which the whole Body of the *Testis* was in a manner surrounded

surrounded and increased to a great Magnitude.

Upon Search, I discovered several *Sinus's*, some more superficial, others deeper and more profound, none of which had been dilated as they ought, but the Matter discharged as the external Orifice happened by its Situation to favour the same.

He was, at that Time, under some Pretender's care, who had surrounded the Body of the *Testis* with a mercurial Emplaster, promising thereby to dissolve the same, whilst the Corruption was to be drawn out by his Balsam.

I assured him there was no Reliance upon such Promises, the Tumour being a true *Sarcoma*, and incapable of Resolution, so that, to me, it was very plain, nothing less than the Extraction of the *Testis* could free him from so stubborn a Malady; and in which, I told him, he might meet with some Difficulty, his Constitution being now broken, and he in a declining Age, a Cough, and hectic Disorder having already seized him, and threatening a *symptomatic Phthisis*; so that declining meddling myself, I persuaded him to take the Opinion of Mr. Bernard, from whom not meeting with more Encouragement, he went from him to others; at length putting himself into the Hands of Mr. Joseph Bateman, at that Time Surgeon to St. Thomas's Hospital, he performed the Operation of Excision, but had the Misfortune to lose his Patient, who died soon after the Operation.

Whilst I was inserting the foregoing Cases, I HIST. XLV. was called on by a Surgeon in that Neighbourhood, to take a View of a large *Testis* of a poor old Frenchman in Spittle Fields; it had been

of several Weeks standing, exceeding the Dimensions of a common Foot-Ball, or Bladder blown up, inclosed in its Leather Case: Upon Enquiry, I found the whole Tumour made up of the Body of the left *Testis*, the other being free and unconcern'd, but by the great Tension, thrust close to the *Scrotum* on the Side opposite, where I could plainly feel it slip about. The *Processus* at the Top, or the *inguinal* Region felt also clear; so that I delivered my Opinion *negatively*, first of all, that it was none of the genuine or true *Hernia*; then feeling more strictly on all the Sides of the Tumour, I could plainly perceive an unequal Hardness, like that of a fleshy Substance in some Parts, whilst, in others, there was a palpable Recedence upon Pressure, with a Renitency immediately, as from some Fluid therein also contain'd, so that the Tumour might be deem'd compounded, or complicate of both.

He had an Apprehension, that a Blow some Time before received about the *Pubes*, rather than on the Part affected, had given Rise thereto; yet whether so, or from some peculiar Disposition in the Part, favouring its Production, was to me uncertain. But be that as it might, it seemed very plain, by its present Appearance, together with that of his emaciated and worn out Habit, that there was no Good to be done; and therefore I advised the Surgeon, in Regard to his own Credit, that he would not open the Tumour, but content himself with a good resolutive *Fotus* and *Cataplasm*, that might keep up the Heat of the Part, and further the Dissipation of the contained Humours.

That, which was farther remarkable in this Case, was, that about the same Time, or soon after the Appearance of this Tumour on the

Stone

Stone below, he had another very large congested one also, thrusting forth on the same Side above, upon his Neck, reaching from a little below the Lobe of the left Ear, down towards the *Clavicle*, appearing like a *Scrophula*, or huge *Wenn*, and seemingly made up of the like Contents with that of the *Testis*, viz. partly *humoural*, and partly *sarcomatous*.

Having thus given my Sentiments of the Case, I came away, desiring the Surgeon to give me Notice of his Death when the same should happen, in order to dissect the Part for my farther Satisfaction, still enquiring between whiles how Matters proceeded; when after a few Days, I understood, that both the Tumours advanced considerably in their Magnitude, insomuch, that the *Testis* exceeded that of a Man's Head, and might reasonably be supposed of half a Dozen Pound Weight. At length, a Mortification appearing in the lower Part, of the Compass of a half Crown, a bloody *Serum* quickly after burst through in a large Quantity, and continued gleeing several Days, till his Strength being quite exhausted, he sunk under a *Marasmus*, keeping his Senses to the last Minute.

The Day after his Death, I went in Company with his Surgeon, and found, notwithstanding the large Profusion of the serous Humour through the rotten Ulcer, the *Testis* was still as big as a Child's Head, or near the Dimensions it was of when I first view'd it.

I then gave Direction for the *Scrotum* to be opened on the right or sound Side, where we turned out the shrivel'd and almost wasted *Testis*, together with its *Cremaster*, free and clear up to the Rings in the *Proceffus*. After which we cut up the Body of the diseased Stone, and out of
several

several large Cells or Cavities, there flowed forth more of the same Liquor, *instar Loturæ Carnium*. What remained being wholly *vesiculous*, like the *Parenchyma* of the Spleen, of a Sponge-like Substance; or, as I then compared it, like a large Pomegranate, *cellular*, with the *Parietes* composed of rotten Membranes, and the Honey-comb like *Vesicles*, stuffed with a putrid *Sanies*: Which sufficiently justified our Prognostic, as well as Conduct in the Proceeding, leaving it rather to Nature, thus to vent itself at long Run, than either by *Caustic* or *Incision*, making an Ulcer out of our Power to heal up again, or letting out only his bloody *Serum*, and leaving the large fleshy Substance yet behind; incurring the Censure, that we had mistaken his Case, and by such Proceeding hastned the poor Man's Death, if they had not given out that we had absolutely killed him.

The Tumour on his Neck, soon after his Decease, was somewhat subsided, but still continu'd about the Bigness of the rotten *Testis*, and seemed to be made up, by our handling thereof (for we did not open it) of the like spongy Materials, and extravasated Humour, with those of the said Part.

In the *fungous* Excreescence upon the *Testis*, where the same is not overgrown, you are to make way thereto, which is then to be consum'd by *Escharotics*, or the *potential Caustery*, in like manner as in other *Sarcomata* has been directed. But indeed, considering this painful way of Proceeding, which yet is unavoidable, the Part affected, the Accidents attending, with their uncertain Issue in malign, fistulous Ulcers; *Castration* here also may be found expedient, and very probably the easiest Remedy of the two: However, in all

Cases of this or the like Difficulty, it will shew you, as I have elsewhere advised, to consult with some ancient and learned Master of your Art, that both your own Reputation, as well as your Patient's Welfare, may be thereby secured; this too should be done in Time, before *Marasmus* comes on, when he is in no Condition to undergo the Method of Cure. And this all we have to communicate concerning the *Hernia carnosæ*, unless that I add this Remark of *Aldanus* thereon, that in all his Practice, he never observed more than one of them upon the left *Testis*: His Conjecture of the Reason, which I think not over forcible, you will find in his 4th Sent. and 64th *Observ.* viz. for that the *Vena præparans* on the left Side, arising not from the *Vena cava* as on the right, but out of the *Emulgent*, carries along with it some salt and nitrous Particles, which are capable of inciding and resolving those viscid Humours, which through want thereof, are apt to settle on the Side opposite.

But here I find our Author at a Stand, when considering the right *Testis* having larger Vessels and greater Heat, as coming immediately from the Trunk of the *Vena Cava*, should, for the same Cause, be the stronger, and better able to defend itself from Obstructions; so that at last he concludes thus: *Potius itaque circa sinistrum Testiculum, qui dextro imbecilior est, sanguinemque immixtiorem, ut Galenus testatur, ad se trahit, fluxum illum humorum delabi, ac proinde carnosam illam substantiam procreari posse, verisimile esse mihi videtur. Id vero cum rarissime visum est, Causam carnosæ Herniæ obscuram esse, cum Paulo Aegineta,*

Yet,

Yet, as I remember, for confirming this Remark, since I took Notice of the same, I have observed more upon the right than left; those I have extracted, which were three, being every one of them on that Side. The same Author, I I mistake not, will have the *Hernia aquosa*, meaning thereby, doubtless, the *Hydrops Testis*, to be found more commonly on the left Side.

Dr. *Harvey* in his *Exercitat.* tells us of a way of freeing the Patient of this Malady (as all other *sarcomatous* Bodies) which is by making Ligature on the Vessel that supplies their Nourishment by which the same being intercepted, the Part below must necessarily perish, and may be safely taken off. But how this can be done in our Case without Prejudice to the *Testis*, I must own, can't readily conceive, the same Vessel supplying the *natural*, as well as *preternatural* (at this Time augmented *Testis*, with its nutritious Juice: He gives us indeed a memorable Instance of one of these *Hernia's*, as large as a Man's Head, and hanging down almost to his Knees, which was destroy'd this way, as you may gather from his Words. *Exercitatio* 52. p. 198. under the Title of *Sarcosæ morbosæ*.

‘ *Supercrescens in Ulceribus Caro, vel Sarcosæ morbosæ, Arteriarum Ramulis contermina, et his nutriuntur, & in maximam interdum Molem excrescunt. Ad hoc Arteriarum Officium, sicut Sanguinis Circulationem respiciens, ingentes alio quando Hernias carnosas, præter omnem Spem perfecte curavi; id solum agens, ut præcisæ vel ligata Arteriola, nihil Nutrimenti, Spiritusve a Parte laborantem accederet; quo factum, Tumor morticinus facile postea vel Ferro, vel Igne extirparetur. Habuit quidem præ cæteris Sarcosæ*

fin in Scroto, sive Herniam carnosam humano Capite majorem, Genuum tenus deorsum pendulam; indeque sursum carnosam moles, ad Carpi Magnitudinem (ceu Funis nauticus) Abdomen ingrediebatur, adeoque Malum increvit, ut nemo Ferro, vel aliter curam aggredi auderet. Hanc tamen ingentem excrescentiam, Scrotum tantopere distendentem, Testiculumque in medio ejus obvolvem, quo dixi modo, plane abstuli, & Curatione perfecta defunctus sum; relicto interea Testi, Vase suo præparante & deferente; reliquis in Scrotum per vaginalem Tunicam descendantibus, salvis & intactis.

Of the HERNIA VARICOSA.

When the Blood-Vessels of the Stone, I mean *Hernia* particularly the *Venæ spermaticæ*, called by the *varicosa*. Ancients *Præparantes*, are in their Ascent from the Body of the same, or its *Epididymis*, by some *Remora* or Stop given to the Fluid therein moving, obstructed and distended by some thicker or grumous Parts thereof thrown out to the Sides, the rest, though heavily, passing on; these Vessels, I say, becoming knotty, as they appear more frequently upon the Legs, give Rise to another Distemper of this Part, which is called *Hernia varicosa*, creating a great deal of Pain and much Trouble to get rid of.

Some Authors have distinguished the same as *external* and *internal*, calling the former by the Name of *Circofele*, the latter *Varicofele*, which they will have more particularly to carry Impotency along with it.

As

As to the Cure, which is for the most Part only palliative, the same consists chiefly in Depletion of the Vessels by *Venæsection*, supporting the Weight by a Bag-Truss, with restraining Applications underneath, to prevent the farther Dilatation of the same, as is practised in the *Varices* of other Parts, with an exact *Regimen* in Diet, and the other *Non-naturals*.

HIS. xlvii. A Clergyman of my Acquaintance was the most severely afflicted with this Malady of any Person I ever met with, having the *spermatic* Vessels so distended, more especially on the right Side from their Ascent by the *Corpus Pampiniforme*, called otherwise *Varicosum*, up with the *Cremaster* to the *Processus Peritonæi*, that they felt like so many large Cords, tied full of Knots, creating oftentimes such gravative Aches or Pains darting thence to the Loins, as rendred him incapable to stand upright, confining him to his Chamber, which Dilemper had been of long standing.

In order to his Relief, he was frequently let Blood, and purged with *Lenients*, as *Cassia*, vel *Elect. Lenit. cum Pulv. Rheî*; being also nephritic, in great Extremity he was forced to have Recourie to *Anodynes*, as the *Pil. Matth. to Æss.* or gr. xv. also the *Ol. Lini*, vel *Amygd. d. cum Syr. de Meconio*; upon which Occasions he had several kind Visits from Dr. Mead, who, in Consultation with me, directed what was necessary to palliate his present Complaints. He fell at length into a Dropsy, accompanied with a Jaundice, having, to sooth his Spirits, too much indulged himself with strong Liquors; so that being now deprived of his usual Benefit by Bleeding, though the same had been frequently supplied by an hæmorrhoidal Flux, he was forced to submit to the common

common Lot. His Custom was, when the most incommoded by these *Varices*, to dip a folded Cloth in *Oxycrate*, and clap close up to the Parts; at other Times he wore a *Cataplasma* in his Bag-Truss, prepared of the Restringtons boiled up in the Steel-Water and red Wine, thickned with *Farina*, and a little Bole, adding as much of the *Ol. Rosar. immat.* as might keep it from growing hard and dry.

Of HERNIA VENTOSA.

The last of the *spurious* or false *Herniæ* we *Hernia* shall recount, is that where *Wind* is pent in by *Ventoſa* the Coats of the *Testis*, or by the *Process*, inflating and blowing up the *Inguen*, by the *Latins* named *Hernia ventosa*, by the *Greeks*, *πνευματόκηλη*.

This Tumour is differenced from the rest by its great Lightness, at some Times disappearing, and again returning; it is oftentimes contained within the outer but proper investing Coat of the *Testis*, call'd *Vaginalis*, which it so distends, as to render the Stone itself inapprehensible; at other Times it affects only the Parts of the Groin, huffing up the same like a true *Hernia* at the first Sight, but is known therefrom, not only by the want of Solidity, or the interposing *Gut* or *Caul*, but the Absence of the common Symptoms, as violent Pain, symptomatic Fever, Vomiting, Singultus, Constipation of the Belly, and the like Attendants upon the intestinal *Hernia*.

Infants are the usual Subjects of this Infirmary, as well as the following, by Reason of their lax and humid Tempers, want of Heat, their manner of Diet, and their infirm Concoction, as well

as Frowardness, disposing to those flatulent Productions. But more of the Cause and Cure of this Distemper, when we come to the *Emphysema*, with which I intend to conclude my Discourse of *Tumours*; having first, as shortly as I can, with Advantage to the young Practitioners in this Art, taken Notice of the true *Hernia*, of which these Parts, together with those of the Groin and Navel, are the usual Places of Receipt; but I shall first give one Instance of the *Hernia ventosa*.

1s.xlvii. A froward Infant, of about three Months old, upon every great Fit of crying, or coughing, being subject to a flatulent Rising in the *Inguen*, the Wind, more than ordinarily, breaking thro' the Membranes, and lifting up the outward Teguments or Enclosure to the Bigness of a Hen's Egg, from whence, with a murmuring Noise, like that in the Reduction of the Gut, it would, upon Pressure (when the Child was pacified) return again, and disappear, quickly after venting in a *Crepitus*, as if there had been a Communication with the common Canal of the Intestines, particularly the *Rectum* with the *Processus*, from whence the *Flatus* seemed to break down; which had occasioned a Mistake in one who undertook the Cure, who had treated it as a Rupture of the Bowels, by which the Pads of the Truss having still farther chafed and galled the Parts, had rendred the poor Infant still more fretful and peevish.

When I had strictly enquired into the Disease, I advised, that these should immediately be thrown aside, and the Excoriations healed with my *Ceratum de Lapide calaminari*: After which, the Cure consisting chiefly in the internal *Regimen*, to correct the windy State of the Bowels, and the In-

digestion

digestion of the Ventricle, whence those Crudities did arise, that raised the flatulent Effervescence; first of all I purged the Infant once in three or four Days with a Spoonful of an Infusion of the *Rad. Rhei in Aq. Lactis*, edulcorating the said Tincture with a little of the *Syr. de Cichoreo*; and, on the intermediate Days I exhibited a full Dose of one or other of the absorbent Powders, we call *testaceous*, such as the *Margarita Corallium*, *Chelæ & ocul. Cancr.* in order to bridle the Acid usually exciting these Disorders, in that tender Age more especially; also for the farther quieting this Disturbance, and allaying the Outrage arising in the Spirits, for moderating the Cough, and dispelling the Wind by a more suitable Passage, I directed the two following Mixtures.

℞ *Ol. Amygd. d. ℥j. Syr. Capil. Ven. ℥ss. m. detur coctileatim urgente Tussi.*

℞ *Aq. Fœnicul. Aq. Flor. Chamæmel. ana ℥ij. Syr. de Meconio ℥ij. f. Mixtura de qua propinentur Cocbl. duo puerilia, aliquo tempore inquietudine magis molestante vel Flatu opprimente.*

For the same Purpose, the good Woman boil'd a Bay Leaf, a Blade of Mace, or a few of the carminative Seeds tied up in a Rag, in the Water with which the *Panada* was prepared; and by prosecuting this Method for about a Month or five Week's Time, the Child was so entirely freed of the Complaint, that the Swelling, even though it cried strongly, and thereby bore down upon those Parts, never after appeared, or gave any manner of Disquiet.

Or the
true Her-
nia, with
their
Causes,
Differen-
ces, Signs,
and Cure.

We come now to the true *Hernia*, of which there are commonly reckon'd two, the one owing to the Prolapse, or falling down of the *Intestine*, particularly a Part of that named *Ileon*, called *Enterocoele*: The other to that of the *Omentum* or *Caul*, termed *Epiplocoele*; when both the *Gut* and *Caul* come down together, it is then named *Entero-Epiplocoele*.

Again, when either of these come down no farther than the Groin to which a Relaxation of the *Peritonæum* may give way, it is named *imperfect* or *incomplete* by some; by others *Hernia inguinalis*: But when the interposing Body breaks through and tumbles down into the *Scrotum*, it is then a *complete Rupture*, or *Hernia scrotalis*.

The Causes of this Distemper are *all violent Motions*, or *strong Exercise of the Body* and some of its *Organs*, such as *Leaping or Jumping*, *Hollowing*, or *long holding the Breath*, *strong Coughing*, or *Vomiting*, bearing hard down upon the *Rim of the Belly*, whether in going to *Stool* when overcostive, or in *Child-Birth*; forcible and long *Crying* also disposeth to the same; whence, as we have already taken Notice, *Infants* and *froward Children* are most liable to these Infirmities through their *Weakness* and *lax or tender Habits*.

The *Prognostics* of these Tumours are to be gathered from the *Nature of the prolapsed Body*, together with that of the *Hernia* or *Rupture* it self, whether *perfect* or *imperfect*, the *Time of its Continuance*, the *Age of the Patient*, *Habit of Body*, and attending *Symptoms*.

And thus it will appear, *there may be more imminent Danger from the Intestine than the Caul*, more from the *Rupture in the Cod than in the Groin*, as also when of *long Duration*, than recently contracted,

tracted, more in ancient People, than Infants or young Children. It being observable, that if the Distemper be not retriev'd before Pubescency, it is scarce afterwards to be expected. Farther, there is greater Trouble in weak infirm Patients, or such as are liable to Coughs, Loosnesses; also drop-sical People, whose muscular Fibres are always unbent or relaxed, than others of a more firm, tight, and vigorous Habit. Lastly, there is more Danger from a Strangulation of the Intestine by the Stricture upon the same, than where the Bowels have a free Liberty (though then the Case is irremediable) by the Largeness of the Breach to perform their Office tolerably in their new Habitation: In the former State, the Patient can survive but few Days, unless timely reliev'd, but is attended during the Time with Vomiting, Hickups, grievous Pain, languid Pulse and cold Sweats, which are the indubitable Diagnostics of a Gangrene or Mortification, and presently after conclude the direful Scene.

When I have given you the most material Notes of discriminating the true *Herniæ* from each other, I shall hasten to the Cure. Let it then be observed, that the *intestinal* Rupture is known from the *omental*, by its greater Fulness, Renitency and Evenness upon the Pressure; the latter feeling softer and more susceptible of the said Impress, as if the Fingers were entring so much Dough on the Inside of the Membranes. The Patient having heretofore (where accustomed to its slipping down, I mean the Gut) been able of himself, laying along, with the Pressure of his own Hand to put it back into the Belly, with a rumbling or croaking Noise; though now, through some Inflammation coming on, he finds himself incapable of the same; besides, the O-

mentum falling down by itself, excites not those severe Symptoms, as attend the other Strangulation, such, I mean, as we have already observ'd, viz. *Fever, Retching, Singultus, Convulsions, cold Sweats* and *sudden Death*, unless it can be reduced either by the *common lesser*, or by the *less frequent*, and *greater Apparatus*.

*The Cure
by the les-
ser Appa-
ratus.*

The *lesser* I call that which is accomplished by the Hand, or *topical* Application, without cutting; that is, by Means of some discutient or emollient *Fomentations* and *Cataplasms*, also sharp and stimulating Clysters, to exonerate or empty the Bowels; after which the Patient must be laid on his Back, with his Head reclining much lower than his Buttocks, or at some Times set reverst, as it were, upon his Head, a strong Person being placed between his Legs, and raising his Hams upon his Shoulders, when standing upright at the Bed's Feet, to which the Patient is first brought, his Head resting upon the Bed, the Artist gently pressing with his warm Hand, or a Flannel express'd from the *Fotus* aforelaid, upon each Side of the *Tumour*, perceives it to give way, till the Pressure thus artfully pursued, the prolapsed Body is at length returned to its Place, the Patient in some Measure contributing in the mean Time thereunto, by the drawing in his Breath; but this failing, and the Symptoms increasing, in order to save Life, the *greater Apparatus* is to be attempted before a *Gangrene* comes, by which the same, however dexterously perform'd, would be rendred ineffectual.

HI. xlviii. An ancient Gentleman, between seventy and eighty, being for many Years afflicted with an *intestinal Hernia*, falling into the *Scrotum*, for which he constantly wore a *Truss*, and when it happened to slip down, was able of himself, ly-
ing

ing along, to put up the same; till by a Fit of Coughing it came down as he was from Home, his Truss not being well fitted, and when he got thither, he found it out of his Power to get it up again: However, mistaking the Disease, he sent to his Apothecary to give him something for the *Colic*, who accordingly ordered him several *carminative* and purging Mixtures, which were no sooner swallowed, but thrown up again, as was every Thing he took. *Clysters* likewise were injected, but without any Benefit; so that continuing exceeding restless, the next Day I was sent for in the Evening, and found him dismally crying out, and retching to vomit, in which he threw up nothing but pure *Bile*: A *Hickup* also attended; so that suspecting an *Iliaca Passio*, I concluded it a lost Case. Considering the Symptoms, together with the Age of the Patient, I was about to leave him, till over-hearing a Whisper of a Rupture he was subject to, I went to the Bed-side, and threw off the Cloaths, where I presently perceiv'd the Source of the Mischief, the *Ileon* fallen through, and strangled by the *Rimula* of the *Process*, from whence this *Orgasmus* of the Spirits was excited, and the Fibres all along the *intestine Canal*, or whole *Ductus alimentalis* drawn into Consent by their nervous Continuity, inverting the *peristaltic Motion*.

Upon which I presently sent for Mr. *Richard Bateman*, who was Surgeon to the Family, in the mean Time directing the following *Bolus* and Mixture, to obtund, if possible, the violent Irritation, and stay the Vomiting.

R. *Phylon. Rom.* ʒj. *Ol. Carni. gut.* ij. *m. f.* *Bolus statim sumendus superbibendo Cochl. tria vel quatuor*

quatuor Mixturæ sequentis instar Theæ calefactæ, cujus totidem capiat eodem modo urgenti Vomitu in Intervallis.

Rx Aq. Mentb. simpl. Aq. Flor. Chamæmel. ana ℥iv. Dris Stephan. ℥ij. Sacch. alb. parum m.

After this he lay somewhat quieter than he had done, and the Surgeon coming, I was sent to again, when with warm Flannels we attempted the replacing, raising him up by the Hams as he lay on his Bed, his Head, by taking away the Bolster and Pillows, very much reclining, but without Success, the *Flatus* and Excrement together having rendred the imprisoned Gut too bulky to pass the Ring or Stricture which compress'd the same; so that perceiving nothing more to be done at present, without manifest Danger of heightning the Inflammation, and hastening a Gangrene by a more violent Pressure, we concluded it the safest Way to desist for the present, and endeavour to relax with an emollient *Cataplasm* till the next Morning, injecting in the mean Time the following Clyster, and repeating his Bole with the stomachic Mixture, thus,

Rx Summit. Centaur. Hyperic. Fol. Laur. Malvæ Brancæ Urcinæ Parietar. ana m℥. Flor. Chamæmel. Melilot. Sambuci ana m℥. Sem. Lini ac Fœnugr. contus. ana ℥j. Coq^r in Aq. F. q. s. ad Mollitiem, reservandq Colaturam pro Fotu, & tuso Magmati, addendq part. æq. Theriac. Andr. ut f. instar Cataplasmatidis, Scroto tumefacto applicandi.

Rx Decoct. com. pro Clyst. (in quo ℥℔. Bac. Juniperi incoxerint) ℥x. Ol. Chamæmel ℥iij. Ol. Anis. Cbym. ℥j. m. f. Enema.

The same Evening the strained Liquor from the *Fæces* of the *Cataplasm* was used, as a Fomentation to the Parts, Flannel-Cloths being thence express'd hot, and applied for half an Hour, after which the *Pultis* was laid on, and continued all Night.

Early the next Morning we met again, and finding him with a low unequal Pulse, his *Singultus* and Vomiting still continuing, with great Pain and Uneasiness; we agreed upon making our last Effort, as thinking it impossible he could survive another.

Removing the *Cataplasm*, we felt the *Scrotum* much softened, less tense, or renitent by the Gut underneath, whereupon applying a hot Flannel expressed from the Fomentation, and renewing for three or four Times, we call'd in a stout Man to our Assistance; when bringing the old Gentleman to the Feet of the Bed, as his Buttocks were got even with the Edge thereof, the Fellow stooping between his Legs, laying each Ham upon his Shoulder, raised himself upright: In this Posture, whilst his Head rested upon the Bed, with warm Stupes pressing gently from one Side to the other, still preventing with our Hands its slipping over to either, we perceived by this wriggling Motion, it seemed to give way, but removing the Pressure, tho' ever so little, it return'd; whence it was plain, tho' we raised it out of the Bag, it was only got to the *Pubes*, and had not past the Perforation; so that as we were about abandoning the miserable old Man, after a second Trial, I call'd for another Stupe, the Porter, who supported him, resting himself on the Foot of the Bed, from whence lifting up again, whilst Mr. *Bateman* was pressing the whole Body of the Intestine with the Palm of his Hand
up

up towards the *Process*; I wriggling up some Part on each Side with my Fingers, perceive it plainly passing through; so that continuing this gentle Motion, and forwarding the Pressure the Remainder unexpectedly at once slipped up with a perceptible Murmur; when laying him immediately down, and raising him up to the Bed Head, whilst the Surgeon kept his Hand close upon the *Process*, the Truss-maker being sent for, fitted him for the present with a Dimitter Pad, till a Steel one could be made for his future Security, or Prevention of a Relapse. This done the following *Electuary* and *Apozem* were ordered for his Cough, which had been somewhat increased by Cold, during the Time of exposing him in the Reduction; and after ten Days, the remarkable old Gentleman appeared again abroad being yet alive, strong and hearty.

R. Conf. Rad. de Symphito Conf. Rosar. rub. an.
 ʒj. Bals. Lucatel. ʒss. Sperm. Ceti. ʒij. Bals. Per.
 ʒj. Syr. Capil. Ven. q. s. m. f. Elect. de quo capiat
 q. N. Mosc. Mane ac Vesper, superbibendo ʒiv
 Decocti sequentis.

R. Decoct. Pectoral. depurati ℥iʒ. Tinct. Cro.
 Aq. Theriacal. extr. ʒss. Syr. Bals. Tolut. ʒ
 m. f. Apozema.

I have met with so many of these concealed or mistaken Cases, especially in Women, that I think it behoves every Artist who is sent for to a colical Case, at least so represented, where the Symptoms of Pain and Vomiting, particularly *Singultus*, are extreme, to enquire whether such Accident is not the Original of the Complaint otherwise

otherwise they will find it but lost Labour to go about the taking off these Symptoms, whilst the Cause is overlook'd.

It is not long since, that I was sent for to a middle aged Man under the like Circumstances, who, one might have imagined, could scarce have been so bashful, nor yet so ignorant of his Case, as to have kept us all so, till half an Hour before his Death, when he inform'd the Apothecary he had a Rupture that came down three Days before, and which he could not now, as formerly, get up again. Upon this a Surgeon, standing much fairer in his own, than the Opinion of his Brethren, took upon him to find Fault, saying, that had they sent for him ever so little sooner (the common Insinuation of vain Boasters, to raise themselves a Name, and depreciate their Betters) he could have saved the Man's Life; and so with as much Probability might any other, who had been acquainted Time enough with the Accident, that is, before a Gangrene had seized upon the Part: And yet, I am satisfied, if this Life-saver can say, he was never foiled in reducing an *intestinal Hernia*, though call'd in at what Time he would desire, he can say more (if he was ever concern'd with many of them) than most other Gentlemen of the Profession. But leaving these *Empirics*, I proceed.

HIST.
xlix.

A young Fellow, upon a Misfortune of this Kind, sending for a Surgeon of his Acquaintance, my near Neighbour, who coming to him, and perceiving the Symptoms threatening, such as *violent and continual Vomiting, Hickups, languid Pulse, and clammy Sweats*, advised his Friends to call me in to his Assistance; and finding an Attempt had been made without Success for the Reduction, and indeed little Likelihood thereof,

HIST. l.

of, the Intestine being so indurated with the *Fæces*, as well as inflated, that it was impossible to be returned at present through the *Rimula* it had before slit: so that all I could do for his Relief, was to bridle, in some Measure, the Convulsion, by the Force of *Anodynes*, till by *discutient* and *emollient* Topics the Tumour was a little softened, and the *Flatus* dissipated; for the former Intention, after a Clyster had been thrown up and returned, I prescribed as follows:

℞ *Phylon. Rom. ʒj. Ol. Juniper. gut. j. m. f. Bolus quamprimum sumendus, superbibendo Haustulum sequentem.*

℞ *Aq. Cinn. Hord. ʒj. Spir. Menthe ʒij. m. f. Haustum.*

To the *Scrotum* was applied the like *Fomentation* and *Cataplasm* with that in the foregoing; between whiles, he was ordered to sup three or four Spoonfuls of simple Mint-water scalding hot, with ten or fifteen Drops of *liquid Laudan.* as the Urgency of Pain and Vomiting should require. But indeed, as I have observed before, 'tis almost fruitless either to endeavour to expect to appease the Symptoms, whilst the Irritation is continued by the displaced Intestine, and the Fibres of the Guts thereby put into a retrograde Motion, by which those of the Stomach itself are drawn into Consent; and whatever is taken (after the manner of the *Iliaca Passio*, from this dreadful Symptom of throwing up even the Excrement itself by the Mouth call'd *Miserere*) is presently cast up again.

The next Day, upon taking off the *Cataplasm*,
 Mortification of the Compass of a Shilling ap-
 peared on the Outside of the *Scrotum*, which the
 Surgeon carefully scarified and fomented, dres-
 sing up with the warm *Ol. Terebinth.* and *Linim.*
serici, with a *Cataplasm*, of *Tberiaca Lond.* on
 the Outside, supported with a T. Bandage for
 the present, in the Place of a Bag; when find-
 ing no likelihood of his Escape, *his Pulse low*
and intermitting; his extreme Parts cold, his Sin-
gultus almost perpetual, with other Messengers of
Death at Hand, I took my Leave, not expect-
 ing he could hold out many Hours. But the
 next Day the Surgeon acquainted me, that the
 young Man was yet living, and that he had observ-
 ed the Excrement to come through the mortified
 Part; a Case so very remarkable, that I thought
 it well worth while to make him another Visit;
 when, in Company with the Surgeon, passing
 in a Probe, and turning the rotten Slough on one
 side, I found more of the *intestinal Fæces* or Ex-
 crement therein, and penetrating still farther into
 the Gut, drawing forth the Instrument, I plainly
 perceived as well by Sight as Smell, the same
 Defilement thereon.

Thus, after several Days languishing, expect-
 ing his Departure every one of them, did this
 poor young Man surmount the most imminent
 Danger; the Ulcer, by the great Diligence and
 Care of his Surgeon, *digesting*, and healing up
 on the Outside, the Gut, being now emptied,
 uniting also and returning to its Place; so that
 whilst *Art* was employed in repairing the out-
 ward Breach, *Nature* was not wanting in so good
 a Subject, to perform a much greater Work, the
 healing of that within, the Patient being yet a-
 live

live and in good Health, at the Writing of this his Case.

*The Cure
by the
greater
Apparatus.*

This common way of the Reduction, when by the Hand failing, the last Refuge is that of the *Apparatus major*, by which we understand the placing of the Patient commodiously for the Operation, either on his Bed or Table; and having there secured him, you are carefully to incise the outward Teguments, beginning first upon the Side of the *Scrotum*, as we observe in the *Castration*; which having entered, you pass in your *Director*, and thereupon divide farther, till you are got up to the *Inguen*, and have laid bare the *Cremaster*; then entering heedfully your crooked Knife buried in its *Sulcus*, for the Security of the Vessels and the subjacent Bowel when it is got up to the Stricture you raise the same, and lay your Work in View, with your Sponge first cleansing away the Blood, which is not much at these times, and with your Finger examining the Condition of the *Rupture*; having found the *Stricture*, you are lastly to force the End of your crooked Knife in its *Sulcus* as before, between that and the *Gut* or *Caul*, as it happens, and enlarge your Wound upon the *Aponeurosis*, or Ring of the *Process* making the Strangulation, till you have given way for your Finger to enter thereby; which being thus dilated, and the Passage enlarged with those of your other Hand, you are to raise the prolapsed Body, and gradually put up the same into its former Place. This done, with your crooked Needle you make as many *Sutures* for joining the Lips of the Wound, each at an Inconvenient Distance, as the same requires, laying your Patient in his Bed, with his Hips a little elevated and his Head as low as he can suffer it, proceed

g farther, as in penetrating Wounds of the *Abdomen* shall be hereafter directed.

Monfieur *Vaughion*, *Guliel. Fabricius Hildanus*, as well as our own Countryman Mr. *Wiseman*, have given farther Instructions therein; but after all that I myself have said, or they have told us, would have the younger *Artist* know, 'tis easier talking of, than performing the Work; and that perfect or compleat Knowledge of the Structure of this *Processus Peritonæi*, to be obtain'd only from ocular Inspection by *Anatomy*, is of absolute Necessity: Nay, this obtain'd, I would caution him from rashly adventuring, till he has seen it enterprised by other expert Artists, at least as for the Qualification of *Lithotomy*) tried it frequently upon dead Bodies.

'Tis true, the Operation is not very often put in Practice; but many Lives, I am well assured, may be thereby saved, which are lost for want of its being timely performed, before the fatal Symptoms from the Inflammation, occasion'd by the Strangulation; such, I mean, as *Gangrene* and *Phlegmon*, come on and destroy the Patient. I do acknowledge, that I never more than once perform'd the Operation, and then lost my Patient by coming too late, the Gut appearing gangren'd upon the same.

Mr. *William Petty*, and some other worthy and good Artists in this City, have been more successful, the former thereby recovering an old Man from the most imminent Danger, who many Years surviv'd the Operation.

Mr. *William Cheselden* has, in his Treatise of the *big Operation* for the Stone, given us also an Example of an *Hernia Entero-Epiplocele*, complicated with an *Hydrocele* of the *Scrotum*, where he performed the Operation, and recovered the Patient.

At

HIST. II.

At the writing of these Observations, I was called by a Surgeon in *Spittle-Fields*, to visit a stout and middle aged Man, then labouring by some Accident under an inguinal Rupture. I found him in great Pain, with the usual Symptoms of *Vomiting*, *Hickups*, and *languid Pulse*.

He had been bled and clyster'd before I came, which was, I think, the second Day, from the last of which his Bowels had been somewhat emptied. To moderate his Symptoms and get a Truce from his Pain, I order'd a Grain of the *Extract. Thebaic.* with a little hot Mint-water after it, which was to be repeated at a proper Distance if the Pain continued, or that the former should be thrown up in Vomiting: A *Fomentation* and *Cataplasm*, as well *discutient* as *emollient*, were likewise prescribed, after the manner of the foregoing.

The Tumour lay very hard in the Groin, and at present, thereby incapable of being replaced, which had been to no Purpose, by the Surgeon and myself (yet with Caution) attempted.

The next Day, perceiving no Advantage from what had been ordered, at least the Complaint returning, when the Effect of the Opiate was worn off, a bold, but most ignorant Pretender came to him, and assured him he could disperse the Swelling, calling it Wind, with a Plaister and a Dose of Pills; accordingly the Plaister was laid on, and the Pills taken, which, in few Hours, so enraged his Pain and Vomiting, that we were again intreated to visit him in Consultation with Mr. *Petty*, who hastened away to him, and upon farther Examination of his Pulse and the singular good Condition of his Habit, concluded him a fit Subject for the Operation, which

which he himself was desirous to undergo, for the saving of his Life. That as little Time might be lost as possible, we agreed to meet again in the Afternoon, in order to the same; in the mean Time the following Clyster being thrown up; whilst the Surgeon or his Servant was to continue the Application of warm Stupes express'd from the Fomentation till we came; the Draught also as follows, upon the Return of the Clyster.

℞ *Laud. Lond. gr. jß. Aq. Cinnamom. Hord. ʒj. Spir. Menthæ ʒij. m. f. Haustus.*

℞ *Decoct. com. pro. Clyster. in quo ʒj. Colocynth. ligata petia, incoxerit tß. Conf. Hamech. ʒß. Ol. Anis. chym. ʒj. m. f. Enema.*

The Clyster staid but a little while, yet brought away some Excrement; after which, together with his Draught, being retained, and the Use of the *Fotus*, we found such an Alteration of Circumstances, that when we met fully purposed to make Incision, the *Apparatus* already provided, coming to examine the Tumour, we perceived it lessen'd, as if the prolapsed Body was returning, his Pulse calm, his Vomiting and *Singultus* ceased, and the Patient much heartier, as in a State of Ease; so that having tried a gentle Compression, but without answering our End, we however agreed to wait another Night, the rather, lest if we should not have succeeded in the Attempt, the Friends would have said we had killed him; or if we had, since he seemed now so much altered for the better, they might have said, there was no need of so desperate an Experiment, and that he would have done well without it.

Upon so slippery a Foot indeed stands the Reputation and Credit of every honest Gentleman conscientiously practising this noble Art; and by Means of this Tenderness, I can't deny, but that in Probability we lost our Patient. For returning the next Day, we found the Symptoms now so desperate, with little or no Pulse, and cold Extremities, that the Operation was not to be enterprised at all; the poor Man, as was plainly to be perceived, now out of the Reach of our Art, departing in few Hours from the Time of this last Visit.

After his Death, the Surgeon having got Leave, Mr. Petty called upon me, and for our own private Satisfaction, we went to open the Body as formally, as if upon the live Subject. The *Scrotum* being divided, he cut up to the *Pubes* by the Guide of his common Director, then entering his crooked Knife in the *Sulcus*, dilated farther up to the *Proceffus*, when the intercepted Body making the Tumour came into Sight; which having examined, we discover'd first of all the *Omentum*, inwrapping the Gut all round with its Blood-Vessels, blackish and turgid thro' the Stagnation; turning this aside, the *Ileon*, I mean a Portion thereof, which was together slipped through, presented itself likewise to view, gangren'd also, and collar'd, as it were, by the Ring, which had girt it so about, as if a Ligature had been tied round, under which, forcing the End of the furrowed Director, with the Knife therein, on the Outside of the Intestine, he straight gave Liberty, cutting through the Stricture, and the prolapsed Bodies were then returned with all imaginable Facility, which without, was as impossible under the present Condition, as for a Person to essay the forcing of his Fist through a

Ring

Ring taken off his Finger. Nor should it seem strange, that the same Bodies thus slipping through, should not be capable oftentimes of being returned back; since at the Time of sliding down, they are lank, slippery and flaccid, but being filled quickly after, by the *Fæces* falling gradually down, or distended like a Bladder with *Flatus*, they are put upon a Tension, whence Inflammation, Gangrene, and all the direful Train of nervous Symptoms *sympathically* arise, and destroy the Patient; the Intestine all the while in its upper Part, being girt round in the Ring of the *Processus*, after the manner of the *Glans Penis* by its *Præputium* in the *Periphimosis*; which how easily soever slipped back, yet by a Fluxion presently arising, the tumefied *Glans* lies strangled underneath, and sometimes mortifies; but to go on with our Subject.

When the prolapsed Body, whether *Gut* or *Gaul*, shall happen to be returned by the gentle and artful Pressure of the Hand, as they are very commonly, some good corroborative Emplaster, as those *de Bolo, vel ad Herniam*, but especially the Bolster-Truss, well fitted to the bearing down, are of absolute Necessity; which last are made either of Dimittie for young Infants, or Steel for others, with which we suffer Children to play about, and take the common Diversion of their Companions; there being now little more requisite than a frequent Inspection of this outward Pressure, to see that the same fits easy, snug, and close, and sufficiently intercepts the Relapse of the Intestine, to accomplish the Cure (so far as the same is attainable) of this Disease.

And here I can do no less than inveigh against *Pretenders to the Cure of*
those scandalous and knavish *Impostors*, who set up for the Cure of this Distemper, under Pretext of *Hernie.*

of their Knowledge in fitting the external Compress, or their Art of *Truss-making*, very necessary, it must be confest, as are many other Pieces of the mechanic Art; but when the *Truss-maker* assumes the Post of a *chirurgic Operator*, he is as much out of his Sphere, as the other Instrument-maker would be, who should pretend to perform himself the Operation, in which those Instruments are used.

So very ignorant are most of these Artificers (and how indeed should we expect it otherwise?) of the Structure of Parts in this particular, notwithstanding their boasted Skill, some of them most impudently assuming the Name of *Surgeons*, that I have seen several venereal Patients with *Buboes in Inguinibus*, wearing their Iron Hoops; and very lately one, where the prolapsed Intestine, which though attempted, never was reduced, was so press'd by the Pad against the *Pubes*, that the Skin on the Outside was mortified, the Intestine underneath partaking of the same Fate, and the Patient's Death at least accelerated thereby.

And yet these are the cozening Knaves our deluded Patients generally apply to now a Days first of all for the Cure of these Infirmities, who ought no farther to concern themselves than in measuring the Waste, and observing the Dimensions, that they may adapt the Bolster suitable to the Part which is to secure the Relapse.

Mr. *Johnson* near the *Blew-Coat* Hospital, as also Mr. *Powel*, both of *Little-Britain*, are Men worthy of Recommendation upon these Accounts, in that they perform their Work well, and concern themselves no farther than directed by the Surgeon, whom they prudently advise their Patients to take better Advice of; and these remarkably

markably modest Men I have the rather taken Notice of, at a Time when we have scarce any Distemper, for which some quacking Remedy is not publickly vended, or which is not taken out of yours and the Physician's Hands by some crafty Knave or fraudulent Pretender. But among the rest, I think the *Venereal*, the *Scrophulous*, the *Ophthalmic*, the *Cancer*, the *Rupture* and the *Bone-setting* Undertakers, by their egregious Villanies, have done more Mischief than all others; and so it will be, till the Legislature (sure it is high Time) takes Care to prevent it by some effectual Law, that may supply the Deficiency of your present Charter. *Several Sorts of Quacks.*

In a Discourse lately published, called the *Modern Quack*, I find the Author has sufficiently exposed the fraudulent Practices of these People, and laid open their vile Abuses; but Detection, as he observes therein, without a coercive Power to restrain them, will avail but little. Wherefore leaving that Subject, all we shall offer farther as to the *inguinal* and *scrotal Hernia*, is this, that upon the Reduction, the Truss being well fitted, is to be continued for many Months, perhaps Years, after a supposed Cure, at least till the relaxed or ruptured Membrane be contracted and agglutinated, which in Children is frequently effected, in the adult but seldom, and never in the ancient; so that these People must be contented to wear their *Safeguards* to the Day of their Deaths.

I might observe to you before I quit the Subject, that the Ancients, by way of preventing Relapse after the Reduction, have devised several other Methods, among which *Castration*, whilst some of them have taken a milder Way for Preservation of the *Testis*: Such as burning the

outer *Teguments*, either by the *actual* or *potential* Caustery, near the Groin, quite down to the *Pubes*, when after Separation of the *Eschar*, they heal up the Part as a deep Burn, by which the adhering *Cicatrix* prevents the Relapse of the Bowels afterwards into the Cod: During the Cure the Patient is confin'd for forty Days to his Bed, in a supine Posture, whilst others practis'd what they call'd the *Punctus Aureus*, by which making Incision above the *Inguen*, down to the *Processus*, they constringe the *Cremaster*, leaving the Vessels free, and the Ligature to fall off of itself, as is practis'd in the *Castration*. Others again made use of the *Filum Aureum*, called otherwise *Virgula aurea*, which was thus: Making their Incision as before, they pass'd a Needle arm'd with a gold Thread or Wire under the *Process*, which having so streighten'd, as not to intercept the Circulation of the Blood, but only the Descent of the Gut, they twist the Wire, and cut off the Ends, making them so smooth as may give no Offence to the neighbouring Parts; then sewing up the Wound, they leave the Wire on the Inside to take its Chance. Lastly, others suspecting Mischief from the preternatural Body thus enclosing, and itself inclosed, propose a leaden Ring to encircle the *Erythroides* or *Vaginalis*, as in the former, till such Time only, as that the Rings of the *Process* being moderately constringed, the Parts all round become *callous*, and thereby prove a Fence against the *Lapsus* of the Bowel, when the said leaden Ring, which in this Operation is left on the Outside, is carefully extracted, being first cut asunder. But I will not trouble you with enlarging upon these Inventions, furnishing I think, rather Matter of Amusement, than useful Practice; though all of them

them seem to have been experimented in former Times, as you may read in *Parry, Alex. Bened. Joubart. Herc. Med.* with diverse others, to be met with among the Observations of that indefatigable Collector of rare Cases, whether *medical* or *chirurgical*, *Joannes Schenknius*.

As a farther Help however, especially in the younger People, who are capable of a Cure, besides the topical Application of a restraining Plaister and the Pad over the same, some proper *traumatic* Decoction may be given inwardly, prepared of some of the ensuing Plants, viz, *Rad. Symphiti, Tormentillæ, Bistortæ, Pentapbylli, Polygonati, Osmondæ regalis, Folia Hyper. Cynoglos. Herniar. Pilosel. Alchymil. Saniculæ, Bugulæ, Equiseti Plantaginis*, or the like Vulneraries, so called; for that by their gentle Stipticity and other sanative Properties, they imbue the Blood with a Sort of an artificial *Gluten*, and restore the Spring of the Fibres, among which I forgot to reckon the *Millefolium*, of whose consolidating Virtues *Hollerius* gives so great Encomium, that when a Man's Nose was entirely divided at the setting on of the Cartilage, a Clown, he says, rudely lifting up the severed Part, and joining it close above, applied the said Herb bruised together with a little Wine, which restrained the Flux of Blood, and healed the Wound with a very seemly Scar.

To these are added also some *Gums* and *natural Balsams*, as *Thus*, *Mastic*, *Storax*, the *Balsamum Tolut. Peruanum*, *Gileadense*, *Cappivi*, together with the artificial one of the Shops, that common Preparation of *Lucatellus*: Likewise the several *Terebinths* of *Strasburg*, *Chio*, *Cyprus*, made into Pills with some restringent Powders *ex Bolo*, *Ter. Japonica*, *Coral. Sanguine Draconis*, &c.

&c. to all which must be added lastly a regular Diet of Meats, easy of Digestion, affording good Nourishments, rather drying, than over moist or slippery, avoiding all gross and windy Aliments.

I know it has been a prevailing Custom among some, not only in these Cases, but also in fractur'd or broken Limbs, to order the *Extremities Animalium* for their constant Food, at least to prepare for them the strong Jellies thereof; such, I mean, as the *Neats Feet*, *Calves Feet*, and *Trotters*; and this they seem to ground upon a Persuasion, that this glutinous Sort of Food will sooner furnish Matter for a *Callus* in the one, and help to consolidate the ruptured Membranes in the other.

But when we strictly survey the Nature of these *Aliments*, composed principally of *Membranes*, *Tendons*, *Ligaments*, and *Cartilages*, together with that of the Nutrition of the Parts, we shall find, that by their cold, slimy, or viscous Particles, they seem not only more difficultly digested in the first Passages, but for the same Reason, more slowly transmitted through the fine Tubes of the *Lacteals*; and probably when sanguified, less assimilable to the Pores of the Parts, than *Flesh* of the same Animals rightly prepared would be.

As to what relates to some of the other *Non-naturals*; let the *Sleep* be moderate, and *Rest* rather indulged than abridged; all extreme Motion or Exercise being highly prejudicial, especially *Jumping* or *Dancing*, *Hollowing*, and long Retention of the *Inspiration*, violent *Coughing* and *Sneezing*; whilst the Body, so far as possible, is kept in such *Medium*, with regard to the *Excreta* & *Retenta*, that the Sick may not be over loose

on the one Side, which by relaxing the Parts of
 the lower Belly increaseth the Disorder, nor over-
 bound on the other, by which straining to exone-
 rate, the Pressure being made immediately on
 the grieved Part, the *Peritonæum*, there may be
 hazard of a Relapse; for which Reason, these in-
 firm People should always bear hard with their
 Hands against the Groin affected, when under
 Necessity of straining upon the Stole.

Of Kin to these *Ruptures* is that of the Na-^{Hernia}
 bel, named in *Latin*, *Hernia Umbilicalis*, in *Greek*, *Umbilica-*
κουφαλός. This Part being liable to the same^{lis.}
 Misfortune with the Groin from the like Causes,
 and having much-like Signs of Distinction, whe-
 ther *spurious* from Wind or Water, or *true*, as
 by the Gut or Caul slit through; and as in that
 right *Idea* of the Parts, in Regard of their
 structure or Formation was absolutely requisite,
 so here no less: This being made up of the *um-*
bilical Vessels of the *Fætus*, passing obliquely thro'
 the *Peritonæum*, in the Center of the *Linea alba*,
 almost after the same manner as the *Cremaster*
 with the *spermatic Vessels*, through the Rings of
 the *Processus*, which uniting in the Skin, com-
 pose that nodose Part we call the *Navel*. The
 Cure somewhat also alike, by a warm Hand, af-
 ter the Use of a discutient and emollient Fomen-
 tation to endeavour the Reduction of the Bowel
 displaced, which if strangled by the Perforation
 in the *Peritonæum*, or not giving way to a Re-
 turn by the Passage it had got through, as dis-
 tended perhaps by *Flatus*, or tumefied by the
 inflammation and Fluxion falling upon the same,
 the Remedy, as before, is, by dividing the Skin
 and Muscles of the *Abdomen*, especially their *A-*
poneuroses, or nervous Expansion, when carefully
 raising up the *Peritonæum*, for fear of hurting
 the

the Guts, you are to dilate that Part that makes the Coarctation, so far that you have Liberty to return the prolapsed Bowel back into its Place. After which, the *Gastrorhaphia* or Suture of the Belly practised in these Cases is to be made, by which the Wound and ruptur'd Membrane of the *Peritonæum* aforesaid may be agglutinated and united, and the Relapse thereby prevented, the same being treated, as in the Wounds of this Part shall be observed in our following *Sections*.

But truly 'tis very seldom, as we have already taken Notice, that these Operations are put in Practice; for if there be Strangulation either *inguinal* or *umbilical*, the Symptoms are often very acute, that 'tis a fatal Case sometimes, thro' the Delay and Ignorance of a *Rupture Merchant* bruising the Parts, before we are consulted; or if there be room for the same, and we come Time enough, but can't succeed by the *lesser Apparatus*, yet the Patient opposing the *greater*, prefers Death itself thereunto, and deprives himself of the Chance still left for his Escape.

Where there is no Strangulation, but on the contrary, the Breach so large, that the Bowels tumbling down into the Cod, or falling through to the Navel, there (though very incommodiouly) performing their Office, the Patient rests himself content in supporting the same, and keeping them from swagging, by the Bag-Trust for the *Scrotum*, or the Brace and Bag for the Navel.

A Caution. And thus we shall take our leave of the true or genuine *Herniæ*, with this Caution only, by way of farther Advice to the young Artift, that as Tumours of the *Scrotum* and *Testis* are not to be open'd without mature Deliberation and Consultation first held upon the same, much less tho'

of the *Abdomen*, without a just *Prognostic*, lest the contents being mistaken, the Patient happens to lose his Life, and the Surgeon what should be almost as dear to him, his Reputation. We read it was the want of this in an Operation of the like Kind, where the Bowels followed the Knife, was the Occasion of one of the greatest Artists of his Age being forced to fly his Country, and live in Exile.

Of FLATULENT TUMOURS.

Having now dispatched the more gross and *Of an Em- tumoural*, together with those Tumours arising *physema*, from the Interposition of some of the Bowels *or flatulens* preternaturally displaced; we come in the last *Tumour*. Place, according to Promise, to treat of the *flatulent*, or those from Wind pent up, and distending its Inclosure.

This Tumour is by the Grecians named *ιμφο-ρεμα*, being defin'd, a white and puffy Swelling, remittent or strait returning after Pressure; at some Times a gentle murmuring or crackling Noise of the Membranes inclosing the same may be perceived upon handling.

The largest of these Tumours is that we call *Tympanites*, a Swelling of the Belly, so named from its Sound like a Drum, when beat upon.

The *Stomach* likewise and *Intestines* are the Seats of this Disease, witness those painful Inflation and cruel *Colics* of these Parts; but these peculiarly fall more under the Direction of *Physic* than *Chirurgery*.

The Tumours principally intended here, are those at some Times observable on the Outside of the Body, whether *Breast*, *Belly*, *Joints*, the *Fore-head*

head and Eye-lids, the *Præputium Penis*, and other Parts.

Upon the *Joints* I have had several of these Tumours recommended to me, which have been by some of the younger Practitioners mistaken and deem'd *strumous*, because not discolour'd, like those of the *inflammatory* Kind: Wherefore I have thought it necessary to lay down these Notes of Discrimination, *i. e.* that the *white Swelling* of the Joint, usually called the *Joint-Evil*, tho' of the same Colour, are more equal, compact locking up, as it were, the *Internodes*, and contracting the Tendons, hinder the free Motion thereof; whereas in the windy Tumour of these Parts, the Swelling is more unequal, seated commonly on each Side the *Patella*, sometimes on one Side only, higher or lower, feeling soft and puffy, as if the Membranes were inflated with a *Blow-pipe*, the Motion being continued, tho' great Weakness attends, and Pain also upon the same.

From the *Gout*, however arising possibly from a sharp *Flatus*, or Effervescence stirred up in these Parts, it is plainly differenced by its less acute Pain, more gradual Rise, and less also of Fluxion attending the same, by which the Patient is capable of going about, which he can't but with exceeding Difficulty, under an *arthritic Paroxysm*.

Causes of Emphysema.

As to the Causes of this *windy Tumour*, there are several that do concur to its Production; the famous Dr. *Glysson*, in his *Traët de Ventriculo & Intestinis*, reckons them up as follows.

Intemperies calida necnon frigida, Obstructio meatuum, Influxus humorum, Fermentatio, Congressus hostilis, & Incarceratio balituum.

But

But albeit these severally may concur as Causes to the Production of a windy Swelling, yet do the more immediate or efficient seem to arise from two of them, I mean, *Fermentatio ac hostilis Con-*
cessus, which last occasions the first.

Nor is it any thing strange, that from a Ferment raised in the Blood, by an Admixture of some *beterogene* Matter, this hostile Conflict should arise, since we see the same thing daily acted before our Eyes, by pouring two Liquors of differing Textures into the same Phial, viz. the *Spirit of Nitre* upon the *Spirit of Wine*, whence such an *Halitus* immediately ariseth, as occasions not only very considerable Heat, but endangers the breaking of the Glafs, if great Care be not taken in pouring on the said Spirit, as it were, by Drops.

And what is more common than to see an infinite Number of flatulent Bubbles rise with a hissing Noise, by putting an *alkaline* Salt, such are the fixed ones of Plants, into an *Acid*, as the Juice of Limon?

Again, if we take a View of what occurs of this kind in the *Macrocosm*, or greater World, we shall meet with a Resemblance, though of a lower Degree, in that which passes in the *Microcosm*, or lesser one, the human Fabric. Thus the kindly Steams, that by the Heat of that central Fire the Sun, are rarified on the Surface of the Water, and fly up to the elementary Regions, are by the Cold of the *Atmosphere* condensed, falling back again in as kindly Showers of Rain: Whilst those arising from some *mineral* Exhalations, or foreign Ferments, either in the Bowels of the Earth, or in the Air, no sooner meet, but conflict to the great Danger of all that is within the Sphere of their Activity, breaking

ing through all Obstacles with the most violent *Impetus*, and carrying all before them.

If it be asked, how this *Halitus* happens to be thus imprison'd, or shut up in the Parts of our Bodies? We may answer, from the weak and infirm Heat thereof, unable to concoct at some Times, or rightly to digest the same, together with the morbid Nature of the *Halitus*, or Vapour itself, which will not admit of Transpiration. For, I think, the including *Tunics* are not to be numbred among the Causes, any more than the Bladder is of the Wind that is blown into and distends it; since these Parts in their natural State are permeable to the kindly Steam that constantly transude, and natural to a living Body, being the same with what we call the *Materia perspirabilis*; but when it happens, as just now remarked, by the debile Heat, and weak Concoction of the Place, that more of these *Halitus* are engendred than can pervade the Membranes, by their own crude Nature, and the Coldness of the Parts, they either condense into an *aqueous*; or if by Reason of their malignant or inimical Disposition they are not suited to the Pores, they assume a *flatulent* State, where still accumulating, they force their Bounds, tearing asunder the Fibres of the Membranes, and distending the same, huff up the Parts they possess into a Tumour, which if done leisurely, as in the *congested*, is attended with less, if suddenly, as in the *Colic*, with the greater Pain.

Of near Relation to this morbid *Halitus*, are those, which tho' unable to blow up the Parts (and this they do also in some *Spasms*, or Cramps, as well as Convulsions) yet by their acrid and pungent Nature, are of Force sufficient to haul and tear asunder the nervous *Fibrillæ* as they

as through: Instances of which we have in those cutting lancinating Pains, with the gnawing tense ones, upon the Joints and membranous Parts of some diseased Patients.

Nor should it seem admirable, that together with the Inflation before observed, there is oftentimes admixt a *phlegmatic* or watery Humour, as is found in the *Tympanites* itself: For when the Membranes are thus distended by the Flatulency, their Pores being streightned, and the Streams naturally arising, which were wont to sweat through in the more relaxed State of the same, being now intercepted, are condensed into Water, whilst the morbid ones, neither capable of the said Condensation, nor suited otherwise to those Pores, will sooner break, or tear in further the Parts inclosing them, than transude or perspire insensibly.

And hence it will appear, that there is a very *Difference* wide Difference betwixt the *Halitus* and *Flatus*; ^{between} the last likewise admitting still a farther *Di-* ^{Halitus} ^{and Flatus.} *stinction* into that which is *natural*, and of a mild Disposition, and *preternatural*, or outrageous.

Our last cited Author distinguisheth them thus, as I shall give you the same in his own Words, taken from his Treatise aforesaid.

‘ *Halitus & Flatus videntur mihi differre (si respicias eorum Appetitum Volatilitatis) ut Dispositio & Habitus; nam Halitus nudus levem Inclinationem tantum ad Statum pneumaticum expetendum & retinendum denotat, quæque, amotâ Causâ excitante, sponte flaccescit: Sed Flatus istum Affectum in Habitum versus significat, & consequenter pertinaciter Coarctationi reluctatur, atque amotâ licet Causâ excitante, in ista Affectione persistit, nec facile ad priorem Corpora-*

' Corporationem reducitur : Hinc Flatus corpora
 ' in quibus includuntur permeare aut penetrare
 ' recusant, abhorrent enim & detestantur Unionem
 ' nem cum Corpore tangibili, ne in pristinam
 ' Crassitiem incidant : Quando enim intumescunt
 ' non tam pervadere, quam perrumpere ac diffin-
 ' fringere claustra in quibus incarcerantur, nituntur.
 ' tur. Porro hinc ratio reddenda est, cur simplices
 ' Halitus vel permeant Corpora se continentia
 ' vel ab iisdem in Stillas condensantur : Flatus
 ' vero ut Permeationem recusant, ita & Condensationem
 ' sationem simul averfantur.

But I fear I have been too prolix in discoursing
 of the Nature and Cause of the *Emphysema*
 wherefore remitting those who are desirous of farther
 Information upon this Head to that Treatise
 particularly that Part of it *de Flatu*, I shall speak
 a few Words of the *Prognostic*, and hasten to the
Cure.

*Prognostic
 of an Em-
 physema.*

The *Prognostic* is taken principally from the
 Part on which the *Tumour* is situate, and thus
 upon the *Joints* it is not only more painful, but also
 difficult to remove ; since if the *Tumour* cannot
 be resolved, nor the *Flatus* dispersed by topical Ap-
 plication, there may be more Danger in the Open-
 ing, than in other Parts more secure and superfi-
 cial.

The Cure.

As to the *Cure* in general, there is much the
 same Method required as was laid down for the
phlegmatic and watery, both in regard of Diet
 and the other *Non-naturals*, as well as local Ap-
 plication. The former must be drying and at-
 tenuating, the latter, the most powerfully resolu-
 tive and discutient ; and thus all things crude, in-
 digestible and flatulent, whether Meats or Drinks
 must be avoided ; all Sorts of Pulse and the great-
 er Part of Herbage and borary Fruits, also all
 hard.

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hard, sour, bottled and fermentable Liquors. A warm dry Air, moderate Sleep and Exercise, will be found requisite: This by way of internal Regimen.

As for Topics, they may be applied either in the Form of a Fomentation, Cataplasm, Liniment, or Emplaster.

A Fomentation may be prepared for this End ex Decocto Herb. Origani, Calamintb. Abrotani, Absynthii, Pulegii, Centaur. Rorismar. Lauri, cum Flor. Chamæmel. Meliloti, Sambuci, Genistæ, & Sem. Cymin. Fœnicul. Carui Anis. Dauci Bac. quoque Lauri ac Juniper. pluribus vel paucioribus in Aq. f. sub finem addendo Spir. Vini Campb. saltem usus tempore.

Of the same Decoction may be formed a Pulvis, by thickning with the Farina, or which is much better, applying the Herbs and Seeds pulped, to which may be farther added, and with still greater Advantage, the Fimus Columbinus, Salnitrum, ac Sulphur vivum.

Liniments for this Purpose are compounded ex Ol. Nardino, Chamæmel. Aneth. to which for the easier Penetration are added a fourth Part of the Ol. Spicæ, Anis. Carui, Chym.

Plaisters are chosen generally from among the hotter Gums, such as Galban, Caranna, Tacambacca, or those ready compounded in the Shops, as the Empl. e Cymino, & Bac. Lauri, to which the Powder of Calx viva may be added, and by which they will become more efficacious for the End intended; also where the Tension is very great, you may add some Emollient to the foresaid Discutients, in order to relax and set open the Pores; of which Kind are the Rad. & Fol. Alth. Herb. Malvæ, Branc. Ursin. Verbascum, Mercurialis, Parietar. Sem. Lini & Fœnugr. ready compound-

ed are the *Ol. Lumbric. Unguent. Dialth. Nervin. Empl. de Mucilagin. ex Ammoniaco, Diagalban.*

But if notwithstanding all your Endeavours the Tumour proves stubborn, and gives not way; being securely situate, and yourself satisfied of its Contents, you may thrust down the Point of a Lancet, and that way let out the imprisoned *Flatus*, after which the Tumour subsiding, you have nothing more to do than to heal up the Puncture: But considering there is generally admixed, as I have already taken Notice, some other crude and indigested Humour, and that the Texture of the muscular Fibres is some way alter'd from their natural State, it often happens, that the Sinuosity will not agglutinate, so that there is a Necessity of dilating, afterwards *digesting, deterging, incarning and cicatrising*, as in other *Sinus's* thus opened is requir'd.

HIST. lii.

A Captain of a Ship having for some Time past been much troubled in walking by a Swelling on each side the Joint of his Knee, desired my Assistance; the Disease passed for a *windy Gout*, but though I could perceive no room to suspect a *Gout*, yet I gave him my Opinion, that the Tumour arose from a *flatulent* Humour, joined with a *pituitous*, pent in, or detained by the Membranes, and raising several unequal Bearings round the Joint; one particularly on each side the *Rotula*, and one larger than the rest, on the *Vastus externus*, palpable, like a Membrane huffed up with Wind, and renitent as a Bladder blown, into which I offered to clap the Point of a Lancet, and let out the Wind detained, it being situate out of Harm's Way, neither so deep as some of them are observ'd: But he would not permit, without a Consultation first had with Mr. Bernard, who meeting me the next Day, gave

gave his Judgment, that it was a pure *Emphysema*, arising from Cold as we had it from himself, lying fuddled all Night upon Deck, and not suffering his Servants to bring him down into his Cabbin, from which Time he sensibly complained of great Weakness in that Knee; the Swelling also quickly after appearing, and upon Motion occasioning a jarring, crackling Noise among the tendinous and membranous Parts thereof. He then asked Mr. *Bernard* about the opening that uppermost Swelling on the outside of the Thigh, who answered him, that although he did not see but that the same might be enterprised with Safety, yet he was first of all desirous to try what Service we could do him other ways, which was to attempt its Resolution, as of the rest, by the following *Fomentation*, after the Use of which the *Lime Cataplasme* was to be applied.

℞ *Herb. Origani, Pulegii, Rorismar. Flor. Chamæmel. Meliloti, Sambuc. ana Mij. Bac. Laur. ac Juniper Sem. Cymin. Sulph. viv. crasso modo contus. ana ℥j. Aluminis ℥ss. coq. in Aq. Fabr. q. s. pro Colaturæ ℥iv.*

In cujus q. s. prius fervesacta intingantur Panni Wallici, & fortiter expressi vicissim applicentur genu circumcirca per semiboram renovando hoc Opus Mane ac Vesperi.

When we had prosecuted this Method for a Fortnight, we perceiv'd much of the Flatulency to be dissipated, the Joint measuring less by two Inches than when we began; so that in our next Consultation, we concluded upon a laced *Knee-piece*, and that he should wear under the same an *Emplaster de Cymin.* with a little *Calx* incorporated:

rated: By the farther Prosecution of which the Remains were in a manner intirely scatter'd, and the Joint so strengthen'd, that by the Help of the Cane he was able to go abroad and visit his Acquaintance.

Yet upon laying aside his Kneè-piece which he had worn out, the upper Tumour appeared again; so that finding his Joint so much strengthen'd thereby, he had another made, which he continued, without farther Complaint.

Whilst he was thus treated with local Application, he was strictly kept to a *Decoct. Lign. Guajac.* with a drying Diet; likewise in Regard to his cold and *phlegmatic* State of Blood, *Chalybeats* and *Bitters* to strengthen his Digestion, warm his Stomach, and invigorate the unbraced Fibres thereof, that no more of the said *pituitous Saburra* might be therein accumulated or heaped up: For which Reason he took also as much of the *Tinct. sacra* every third Night, as emptied his Bowels two or three Times the Day following; and so soon as he was in a Condition for the Journey, got on Horseback, and by my Persuasion rode to the *Bath*; where, having his Body prepared for the same by two or three Doses of the *Pil. de Hiera cum Agarico*, he both bathed and drank the Waters from the Pump, and returned, after six Weeks, very strong and free from his Lameness, as before this Misfortune.

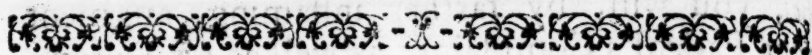
Several of the like Tumours I have seen dispersed by the *Calx lota*, applied like a *Pultis*: Also Cloths press'd out of a strong Solution thereof, and repeated Night and Morning for some Time, being rolled on with a Flannel Roller, have sometimes the good Effect.

There is yet another Sort of the *windy Tumours*, wherein the *Intemperies calida* seem to have

have the greatest Share, and by which the Membranes, being, as it were, over-dried, the *Hali-tus* thereby stop'd from their natural Transpiration, recoil, and degenerating into a diseasy State, create exceeding Disturbance to the animal *Oeconomy*: Examples of which we daily meet with in some excruciating bilious *Cholics*, to whom if you give the usual *Carminatives*, or hot *Aromatics*, you will, by farther inflaming, augment your Patient's Complaint, as well as his Distemper. On the contrary, large Draughts of cold Water, and cold *Epithems*, at least bathing in Water lukewarm, by relaxing the corrugated Fibres, and taking off their Crispature, allays the Disorder and quiets the Tumult; and thus in like manner have I seen some Inflations of the *Abdomen* suddenly arising, and after spirituous Applications ineffectually applied, as quickly disappearing and scattered by an *Epithem* made only of a Solution of the Flowers of *Sal Ammoniac* and *Nitre* in fair Water; Not to mention those surprising *abdominal* Inflations of some of the tender Sex, under the Force of an *hysteric Paroxysm*, which is purely of the *spasmodic*, or convulsive Kind, arising from a tumultuous Occursion of the Spirits rushing suddenly through the *nervous Plexus* of these Parts, and expanding the Membranes thereof, and where likewise oftentimes the Hurry and Commotion is sooner appeased by a Draught of *Oxycrate* (which was *Riverius's* Remedy) or cold Spring Water, than by any spirituous or vinous Composition of what Kind soever.



S E C T. IV.



Of WOUNDS in general.



Definition

of a Wound.

IN our last Section having finished our Discourse of *Tumours*, we shall now proceed, and begin this with an Account of *Wounds* in general.

A *Wound*, by the *Greeks* called *ῥαῦμα*, as the Medicaments thereunto appropriate are named *Traumatica*, and by the *Latins* *Vulnus*, implies a *Division* or *Solution* of the *Continuum* in any Part of an animate Body.

I have designedly left out of this *Definition* the *fleshy* or soft Parts, and the external inflicting Instrument, because the *Tendons*, *Cartilages*, and *Ligaments* are capable of being wounded, equally with the *muscular* or fleshy Parts.

Nay, if any Man should call a *Solution* of *Continuity* in the *Bones* themselves, such, for Instance, as that made by a *Scimeter*, cutting away a Piece of the *Cranium*, an *incised Wound*; another by a *Pen-knife*, or other sharp-pointed Instrument struck into the same, called commonly *Sedes*, a *punctur'd Wound*; or, in a Word, the common *Fracture*, a *contus'd Wound* of the *Bones*, it may very probably argue more of *Singularity* than *Impropriety* of Speech. Nor

Nor do we want the Authorities of *Hippocrates* and *Galen* to countenance this way of Expression.

The *Rupture*, we know, implies the same Thing as the *Fracture*, and yet through Custom that Word is now appropriated to the Solution, as well as Relaxation of the *Peritoneum*, occasioned by the breaking through of the Bowels.

I have likewise omitted the Cause without the Body, called therefore *external*; since I see not, why a Stone bred in the Kidney, or other Parts, and by its Edge or Points dividing the Parts inclosing the same, may not as properly be said to make a Wound, as any Instrument from without; but indeed in some Respects this Stone may be said to be *external* to that Part where the Wound is given. Besides, the *Rupture* above-mentioned is as much a lacerated Wound, tho' from within, as if the Rent were owing to some Force from the Outside.

But leaving Disputes, I think the Eye, where the same becomes its Object, will better discover the Nature of this Disease than any Definition: Upon which Account we shall not take in those Breaches which are incapable of being thereto exposed; such, I mean, as may arise from *Flatus*, as we took Notice at the Close of the last Section, or other acrid or sharp Humours, exciting in our Bodies a painful Sensation, which, when present, we are always to suppose a Solution of Continuity, however imperceptible to our outward Sense, in the *nervous Compages*: And if any one shall object, that our Definition, however unrestrained and comprehensive, is yet deficient: For, that *Plants*, as well as *Animals* (which we ourselves have observed in another Place) are susceptible also of *Wounds*, we shall grant it true.

But leaving these to the *Botanic Operator*, or *Gardiner*, we will hasten to the Differences of Wounds in animate Bodies, among which, I hope, I need not here acquaint you, that I mean particularly or more especially the *human*.

*Difference
of Wounds.*

These Differences of Wounds, I find, are usually borrowed from the Weapon that inflicts them; thus if made by one that has a sharp Edge, as a Knife, it is called an *incised Wound*; if from an obtuse, or one that has no Edge at all, as a Bar of Iron, or a Club, a *contused Wound*; if by Means of a Nail or Tenterhook tearing through the Skin or Flesh, a *lacerated Wound*; and if from a sharp Point only, as that of a Rapier, a Needle, or Thorn, a *punctured Wound*.

But quitting these also, with other accidental Differences arising from the *Figure*, *Time of inflicting*, and the like, we come to the Signs; and here, the *diagnostic* ones, of Wounds made outwardly upon the Parts, are, as we have already remark'd, self-evident.

Indeed, where the Wound penetrates, or ariseth from some Cause within, these Signs are to be taken, as well from the *Posture the Person was in who gave the Wound*, as that of him who received it, the *Parts opposite, or near adjoining*, the *Excreta from the Wound itself*, or its outward *Orifice*, and the *Nature of the Patient's Complaint*: *Anatomy* must furnish the one, and an Acquaintance with the usual Symptoms the other. For as the *Heart, Lungs, Liver, Stomach, Spleen, Intestines, Kidneys, Bladder, Womb, &c.* have almost always the same natural Situation, so likewise their constant and proper Symptoms upon Hurts received: Of which we shall take more particular Notice, when we come to handle the Wounds of the several Parts.

The

The *Prognostic* Signs of Wounds in general, *Progn-*
 may be gathered from the *Nature* and *Office* of *stics* of
 the *Parts* wounded; and thus, as to their *Nature*, *Wounds*
 where there are more of the nervous *Fibrillæ* go to-^{in general.}
 wards the *Structure*, and fewer of the carnous,
 there will be always the greatest *Danger*, by *Reason*
 of the exquisite *Sensation*; such are the *Wounds* of
 the *Meninges Cerebri*, the nervous *Part* of the
Diaphragm, and all other the nervous, membra-
 nous and tendinous *Parts*.

From their *Nature* and *Office* both; thus the
Wounds of the *Aspera Arteria*, and *Oesophagus*, the
Ventricle, *Intestines*, *Bladder*, and the like, are full
 of *Danger*.

From their *Office* principally; as the *Brain*,
 the *Heart*, the *Lungs*, whose *Wounds* are commonly
 deemed mortal.

From the *Discharge* of the *Contents* chiefly,
 and *Difficulty* of coming to agglutinate; and
 thus the *Wounds* of the *Blood-Vessels*, particularly
 their larger *Trunks*, and in especial manner those of
 the *Arteries*, are often fatal, by *Reason* of the said
Difficulty to restrain the *Effusion*.

On the other hand, the *Wounds* of the *mus-*
cular or fleshy *Parts*, such as have neither so
 quick a *Sense*, so noble an *Office*, neither yet
 are accompanied with so hazardous *Events*, are
 much more hopeful; and for the most part cura-
 ble: Among these we number the *Wounds* of
 the *Head*, mistake me not, I mean only those of
 the hairy *Scalp*, where neither the *Pericranium*,
 nor the *Skull*, and *Parts* underneath have received
Injury: *Wounds* of the *Face*, which though per-
 haps disfiguring the same, yet admit of healing
 easily; *Wounds* also of the *Limbs*, that is, their
musculous *Parts*, free of the *Joints*, *Tendons*, and
Blood-Vessels.

As

*Intentions
in the Cure
of Wounds.*

As to the general Cure of Wounds, we principally to regard these following Intentions *viz. The Removal of extraneous Bodies, restraining the Hæmorrhage, or Flux of Blood, conjoining the divided Lips of the Wound, keeping them conjoin'd, promoting their Agglutination, and obviating the Symptoms.*

These, I say, are *primary Intentions* in simple Wounds, but in those complicate with Contusion, Fracture, Loss of Substance, or the like; there are moreover other Requisites, as Reposition of the fractured Bones, Digestion of the Wound, Detersion or Mundification, Incarnation and Cicatrization: But proceeding with the Wound less complicate.

To answer this *first Intention* of removing extraneous Bodies, besides the common ones, there are various *Forcipes* contriv'd, which from the Resemblance to the *Rostra*, or *Beaks* of Birds have been denominated *Bills*, as the *Crane's Duck's* and *Crow's Bill*, which, with some others are well express'd in Sculpture by *Scultetus*, in his *Armamentarium Chirurgicum*; also by *Ambro Parey*, and that most expert Practitioner *Gulielm. Hildanus*: But these, I think, are too well known to need an Explication: However, in their Use it may be needful to observe the following Cautions.

Caution about the drawing forth extraneous Bodies.

1. That the Patient at the Time of Extraction, at least the Part hurt, must be placed in that Posture he received his Wound, otherwise the Site of the Muscles being perhaps somewhat altered, the Cavity will be harder to be discovered, or the Place where such Body is lodged thereby precluded: And this is very frequent in *Splinters, Bits of Glass, Needles broke in the Flesh*

esh, which if not presently discovered and drawn forth, will sometimes work themselves quite out of Sight, and remote from the Place that they first entered: In one Posture of the Limb they will likewise be plainly felt under the Skin and flesh, and in another lost again; a remarkable instance of which I shall lay down among the punctured Wounds.

2. That the same be extracted as soon as possible, lest by the Fluxion coming on with Inflammation, the Orifice contracts, and renders it impracticable, when you must now wait till the Wound is *digested*, and the same thereby again relaxed.

3. That in foreign Bodies lodged in the Joints, double Diligence is required, that by all Means possible they may be removed, and that with Expedition, since by lying here they continually irritate the nervous Parts, and bring on Convulsions.

4. That if the said Bodies are forced almost through the Limb, or other fleshy Part, so that they may be felt on the Side opposite, it may be easier making a new Wound upon such Place, than drawing them out the way that they went in, particularly if lodged under the *Tendons* or *Artery*, where there is Difficulty in coming at them without wounding of those Parts, and more especially where the Body impell'd is small at the Point, and larger or more spread towards the Orifice of the Wound: Of this Nature were the *barbed Arrows* of the Ancients, and at this Time of some of the savage *Indians*, which are often with more Ease forced through, than drawn forth by the Wound they made at first.

5. That

5. That in extracting any foreign Matter you use great Caution, that together therewith you lay not hold of any other, especially of the *nevous* Parts, which would excite fresh Symptoms and those of the most dreadful Kind ; for which Reason, and your more ready Discovery, if the Part will allow, you may enlarge the Wound for the greater Facility in apprehending or taking hold of the same.

6. And lastly, where there seemeth Danger of great and fatal *Hæmorrhages*, or of the Patient instantly expiring upon the Extraction, it is better to leave them, lest he die under your Hands. Also where they lie deep among the Muscles, particularly in the Case of leaden Bullets, you may if there appears any Difficulty in the Work, leave them to Nature's Management, who sometime will shew you afterwards a more commodious Passage for their Deliverance, either raising an *Abscess*, which being open'd, they are thereby discharged, or sinking to the outward Parts, and easily cut out ; at the worst they may happen to lie still and quiet where they are.

And these, I think, are the most material Points in the removing of *extraneous* Bodies. But there are yet some others, which sometime also require to be taken out, which though perhaps not altogether so properly termed *extraneous*, as not forced in *ab extra*, are however become in some Sense now foreign to those Bodies they just before belonged to, and will as much obstruct the healing as if coming from without. Such are the small Shivers or Splinters from Bones broke off in *Fractions*, and so entirely separate from the rest of the Bone, that there is no Prospect or Possibility of a Re-union with

the same: In which Cases great Circumspection will be requir'd, that you remove them with the greatest Ease to your Patient, without tearing, as we remark'd above, any *tendinous* or *nervous* Part in its Passage; or if too big to come forth at the Wound, where it lies pricking and exciting farther Disturbance, you must carefully enlarge the same, in order to Extraction thereof: These Instances are chiefly met with in *Fractures* with *Comminution*, and in *Gun-shot Wounds* from Engagements at Sea, several of which that laborious and well-deserving Practitioner Mr. Richard Wiseman has given us an Account of.

There are besides these Instruments for *Extraction* Topics for the drawing out extraneous Bodies liable to be regarded. certain Medicaments, both *simple* as well as *compounded*, recommended for this End, to be applied to the Part; such are the *Rad. Dictamn.* *Impinel.* *Aristolochiæ*, also several of the *Gums*, as the *Ammon.* *Galban.* *Sagapen.* *Asafætida*, *Elemi*; also the *Viscus Aucupum*, and by some the *Stercus Columbinus*, among which we must not forget the *Loadstone* prepared, which commonly enters into these Compositions; whence they have derived their Names of *Magnetical*, in which Class *Quercetan* has an Emplaster, termed otherwise *Attractivum*, thus directed.

℞ *Ammon. Bdellii in Aceto Solut. ana* ℥ij. *Galban. Mumiae Thuris, Mastich. ana* ℥iij. *Camphor. ʒij. Coral. utriusque Magnet. pp. Aspalat. Carab. ana* ℥ss. *Rad. Aristol. Serpentar. & Hirundinis, ana* ℥iiss. *Ceræ Pic. Naval. ana* ℥iij. *Alap. pp. ʒiij. Ol. Tereb. & Ov. ana* q. s. *ut f. instar Cerati.*

This Remedy (if you can credit the Author) rightly prepared, draws forth Poison, as well as Iron,

Iron, Bones, Wood, and pieces of Garments forced into Wounds, either by Gun-shot or otherwise. Of like Nature is the famed *Opodoch* Plaister, compos'd by *Paracelsus*, which you will find in the *London Dispensatory*, and the Writings of *Felix Wurtz*, with very little Variation. *Crollius*, *Hartman*, as also *Sennertus* have many such like Forms. But whatever the effect, I think it rather imputable to their *purating* and *digesting* Faculties, making way for such foreign Bodies, together with the purulent Matter they promote, to discharge themselves than to any inherent Property of *Attraction* or supposed *Magnetism*, none of which in Cases of Danger are to be relied on or confided in: For if any Effect has ensued of this Kind, I must confess, for my own Part, I should rather ascribe the same to the proper and natural *Oscillation* of the *Fibrillæ* themselves, which are always irritated by any thing foreign, and through the contractile Property alone oftentimes get rid of them. Thus have I seen after the Operation of *Lithotomy*, where the Surgeon has left a Stone unobserved, or miss'd of that for which he cut the Patient, the next Day, by means of this contractile Force in the Fibre, the Stone, which the Day before was not to be found, has presented itself at the Mouth of the Wound. The

HIST. liii. I well remember was the Case of Mr. *Mark* with whom Dr. *Groenvelt* and myself were concerned: He was nearer seventy than sixty when he underwent the Operation, which was deviously perform'd by the Doctor, who having entered the Bladder with his *Forceps*, and brought out a smooth Stone as big as a Pigeon's Egg, whispered to me that he was sure it was not alone; and entering a second Time brought up another

ther, polished as the first, there being usually more than one, when they are found so smooth their Surface. He then went down again with his Instrument, and drew forth a third, then concluding he had brought all away, as finding upon Search for that End no more behind, I dress'd the Patient ; and the Day we came to open the Wound, which was the second after cutting, were presented a fourth Stone to our Eyes, lying in the Wound ; and which at the time of the first Search, lay concealed probably in a Fold of the Bladder, but had now, by the natural Contraction of the Fibres, raised itself up to the Wound, where it was stopt by the Dressings and the Bandage.

This Case I have inserted as the more remarkable, for these Circumstances, *there being no less than four smooth Stones of equal Magnitude, the Patient a very ancient Man, well known to most of you, being a Member of your Company on the Barristers side, and living afterwards to be a Master of the same, hearty and well to near his eightieth Year, when he seem'd rather to die of Age than Sickness,* but proceeding ;

If a Needle lay upon a Wound, I should not doubt the Removal of it by a *Loadstone* approaching to it, but where it is enter'd the Flesh, tho' some Part lay out of the Wound, I have, for Curiosity sake, tried it ineffectually, and much less doubtless will it operate, where the same, or other Pieces of that Metal, as Nails, or the like, are buried deep among the Muscles or fleshy parts ; less still, I fear, where the *Loadstone* being reduced to a Powder (which destroys the *Magnetism* or attractive Force thereof) is invisibly mixed with any *emplastic* Composition.

The

The *second Intention* we proposed in the *general Cure* of Wounds, was restraining the *Hæmorrhage*, or Flux of Blood, and this is oftentimes the first, where the same is so impetuous as to allow no Time for the other, lest otherwise, whilst you are busied in searching for, or removing *extraneous Bodies*, such especially as may be permitted to lie longer where they are, your Patient is near exhausted, or perhaps bleed to Death.

In staying of this Flux, the younger Surgeon must be informed, that in *plethoric*, or full Bodies, or *sanguine Habits*, the Wound near some sensible Part, as on the Joints, where great Flux of Humour with Inflammation may be feared, he is not presently to dam up the Mouth of the bleeding Vessel, if the Stream is not impetuous therefrom, but to suffer the same to flow moderately according to the Patient's Age and Strength, by which in some Degree those Symptoms may be averted, and the *symptomatic Fever* lessened, if not prevented.

Stiptic

Remedies.

To restrain this Bleeding there are many, both *emplastic* and *restringent* Remedies made use of such as the *Farina Volatilis*, *Galen's Powder* of the *Pili leporini*, *Thuroloes cum Albumine Ovi* which is no contemptible one for these Uses, *Balsamulus verus*, *Sanguis Draconis*: A stronger Sort are compounded of these, mixed with the Powder of crude *Alum* or *Vitriol*, and a yet stronger of these alone: The *Colcothar* of *Vitriol* is of good Use, called *Calcanthum rubefactum*; as are also the *Umbra* and *Calx viva*, which two being beat up with *Galen's Powder*, and the Whites of Eggs did remarkable Service after an *Amputation*, performed by Dr. Read in a Country Expedition. Nor must I forget among other famous *æque*

or *Blood Stanchers*, to mention the *Crepitus Lupi*, call'd commonly the *Fushball*, and much cry'd up by some.

Among Liquids there are great Variety, every *Empiric* now boasting of an infallible *Stiptic*, Those which I have try'd, and none I think have answer'd better, have been the Solutions of *Alum* or *Vitriol* in their Phlegm arising upon Distillation, about $\mathfrak{z}\beta$. of each to $\mathfrak{z}\text{iv}$. of the *Menstruum*: Or the Oil itself added to the said Phlegm in a suitable Proportion, is a very powerful Stiptic.

In the Reign of King *Charles* the Second, Mr. *Denys's* *Effence* made great Noise among us, many Experiments being tried therewith, by Dr. *Walter Needham* and Mr. *Richard Wiseman*, as well on *Brutes* as *human* Bodies, several of the Court Physicians and principal Surgeons being present, the King himself also a Spectator at some of them, and declaring his Satisfaction in the same; upon which Monsieur *Denys* was desir'd (but not without a princely Reward) to communicate his Secret, which was prepar'd in the *Royal Laboratory*, and after us'd with very great Applause, under the Title of *Stipticum Regis*, which you will meet with in *Bates's Dispensatory*, english'd by *Salmon*. I do not mean that *ex Colcoth. Alum. Sacch. cand. Urina Juvenis*, &c. but which was prepar'd by extracting of the Salt from the *Caput Mort.* of *Vitriol*, with *Spirit of Wine*, and after dissolving the same in Water. Yet such (as is commonly the Lot of *Nostrums*) was the Fate of this Remedy, that although before it was known it bore almost an inestimable Value, yet quickly after the Secret taking Air, the same began to be overlook'd, and little set by, which put another *Secret-Monger* upon publishing

lishing one not half so good, as was prov'd by that faithful and judicious Practitioner Mr. Cowper, in the Hospital of St. Thomas, Southwark; who, notwithstanding the differing Character given it by the Author, declar'd it a most painful and violent *Caustic*, at the same Time ineffectual in the end of its Application. However, when our People had run a madding some time after this new *Luminary*, a Purchaser was met with (much Good may do him with his Bargain) on whose Hands, I doubt, the Commodity goes heavily off, especially since another *Wonder-working Whim* for the same Intention is put up to a Sale; which notwithstanding a *Quondam first Rate* Physician has been *Fautor* thereunto, I must do that Justice to the Publick, to declare, in those few Trials I have made therewith, I found it what the common People call a *Chip in Pottage*; and, I fear, whoever shall lay a Stress on the same in *Amputation*, or restraining any forcible *Hæmorrhage* from the Arteries of human Bodies, especially the Adult, will be found to do little better than trifle with Men's Lives. The first Time I had sight of this Medicine, and tried it upon my Tongue, I was absolutely certain it was a Solution of *Steel*, which was farther confirm'd by some other Trials I made use of; though the first convinc'd me there was not one quarter part of that *austere Poignancy* or Roughness requir'd to corrugate the Mouth of a large Artery, or take off its *impetus*; nor could I apprehend it one half so good a Remedy for internal Bleedings, as that Solution of the same Mineral join'd with the *Sal*, or, as others call it, *Sacch. Saturni* in the *antiphthifical Tincture*: But hearing that my worthy Friend Dr. *Sprengal* had been trying some Experiments, I sent a Letter to him upon the

same Subject, not having then seen his Papers, and received the following candid Answer there-to, which I have his Leave also to make Publick, as here following.

Dear Sir,

NO sooner I received your Letter, but I thought myself oblig'd to answer your Request, viz. what Experiments I had made with Dr. E——n's *Stiptick*. As for its Contents, they are the same with what has been long ago publish'd by *Helvetius*, consisting of one part *Steel* and two of *Tartar*, dissolv'd in Brandy. Mr. *Godfrey* the Chymist tried both, that of *Helvetius* and that of E——n, and found them the same, only that the Solution of one was done with a strong *French Brandy*, the other, which was E——n's, in a *Molosses Spirit*.

As for its *stiptic* Quality, the first Time I saw it was in the Hands of Mr. D——, the Surgeon, whom I then immediately told it was a *chalibeat* Preparation, and that I thought I knew it; but I did not trouble my self about it, thinking no more of it, till lately seeing Sir R——d B——'s Book, in the Preface whereof he gives it the greatest Encomium, as the best and most useful Invention of any in the healing Faculty, and recommends it for a universal *Stiptic*, both for inward and outward Bleedings; and yet the only Experiment which convinced Sir R——d, was, merely the opening of the *crural Artery* of a Dog, and stopping that, as may be seen in E——n's Book.

You may be sure, my dear Friend, that this could not but shock me, who knew well e-

' nough that *E——n* was not the first Inventor,
 ' but that it had been long before his Time well
 ' known in *France*, and after made publick by
 ' *Helvetius* aforefaid; and that the stopping of
 ' the Blood in the crural Artery of a Dog was
 ' no Trial at all; for these are so very small, that
 ' they will sometimes stop even of themselves,
 ' as has appear'd upon several Trials, not only
 ' upon the *crural*, but also the *carotid* Arteries,
 ' as Mr. *Ranby* the Surgeon, who made the Ope-
 ' ration, can attest.

' Upon applying the *Stiptic*, I found that
 ' *E——*'s stopt the Bleeding, and so did *Helve-*
 ' *tius*'s, and so did the *Tinctura Antiphthifica Et-*
 ' *mulleri*, rather better than either; but I found
 ' a little Lint did very nigh as well as any of
 ' them.

' Now for its Virtue in internal Bleedings,
 ' must say this, that if *Steel* and *Brandy*, or
 ' *Molosses Spirits* will stop those Bleedings, I am
 ' quite out in the *Rationale*; since even *Si-*
 ' *R——d* must confess, as he does in his Chap-
 ' ter concerning *Spitting of Blood*, that there is
 ' always a feverish Ferment or *Orgasm* at that
 ' Time in the same; and if so, how can *Steel*
 ' I say, and *Brandy* (which by stimulating the
 ' Fibres and heating the Mass of Blood, must
 ' propel the circulating Fluid with still greater
 ' Force) possibly stop Bleeding? But I shall leave
 ' this to your farther Consideration and Judge-
 ' ment, and refer you to some Papers given in to
 ' the *Royal Society*, by

S I R,

Your Friend and most humble Servant,

Bloomsbury-Square,
Oct. 6. 1724.

C. J. Sprengel

As to the Observations here made by this worthy Physician, I find the same long since remark'd by Mr. Cowper, in his Account of Mr. Denys's *Essentia Stiptica*, in the following Words.

‘ *Trials of Stipticks on the Bodies of Quadrupeds*
 ‘ *have been commonly practised to commend them to*
 ‘ *the Publick: But it is not without Cause that*
 ‘ *Pretenders to such Remedies have made choice of*
 ‘ *younger Animals, as Dogs and Calves, &c. for*
 ‘ *that Purpose. But since the only Standard for*
 ‘ *their Use is their Success on human Bodies, we*
 ‘ *ought to make our Experiments on those Animals,*
 ‘ *whose Magnitude and Age bear a Proportion to*
 ‘ *it: For nothing is more obvious in wounding the*
 ‘ *Arteries of living Animals, than that the Pro-*
 ‘ *trusion of their Blood bears a proportion to their*
 ‘ *Bulk; and in Dissection, the Arteries of the*
 ‘ *Fœtus are remarkably thinner than those of an*
 ‘ *adult, and those of aged Bodies grow still thicker,*
 ‘ *and frequently become cartilaginous, and at length*
 ‘ *entirely bony, of which Dr. Tyson and my self*
 ‘ *have several Pieces. Thus he.*

For my own part, I am so far of Dr. Sprengal's Opinion from what I have seen of the Effects of this, as to believe it possible to restrain any *Hæmorrhage* with a Button of dry Lint, clapt close to the Mouth of the Bleeding Vessel, which Dr. E——n can do with his *Stiptic*; for in these small Arteries, if the Progress of the Blood is check'd, a *Grume* is presently form'd, which of itself very frequently supplies the Place of an *Ischæma*, and stops the farther Effusion.

Mr. Denys's Remedy was tried upon *Calves* dismember'd as high on the Leg as they could amputate,

amputate, and afterwards the Animal let go to struggle as it would, by which the Pledgets that had been dipt in the Liquor and applied to the Vessels fell off, without a Drop of Blood appearing: After which it was tried upon human Bodies in several Operations, as well at the Hospitals here at Home, as in the Sea Engagements on Board the Ships; particularly that with the *Dutch*, in the Year 1673, by the Surgeons of the Earl of *Ossery*, Sir *Edward Sprag*, and Sir *John Berry*, with admirable Success, as the Surgeons themselves reported; whilst others have given us a great Commendation thereof, when taken inwardly, for stopping Bleedings issuing from the Apertion of some Vessel in the Lungs, or other internal Parts; so that there is no Comparison between this *martial* one of *E——n's* and the *vitriolic* one of Mr. *Denys's*, unless that the latter is no longer a *Secret*, the former (tho' as well known) going under the Name of a *Nostrum*, which has been the usual Sanctuary of those, who missing their Aim in the fair and honourable Method of Practice, stoop to these mean Artifices by way of Reprisal. But if, as I have taken notice in my *Siphyllis*, some *Sages* of the Faculty, who would be accounted *Regulars*, have run into this scandalous Way of Practice, what better is to be expected from those, whom a sort of Necessity now drives upon these pitiful Expedients to support their Fortunes? Hastening now to our Subject,

You must always observe, that the stronger of these *siptic* Remedies are not call'd for, unless upon some great Effusion from the Arteries, the Mouths of which they not only corrugate, but even painfully cauterise and burn up, inducing thereon a sort of *Eschar* or Crust; although they

are convenient to be ready at hand at the Time of performing an Operation, where such Accident unavoidably ensues, but by no means where the milder Remedies may take Place, as in the *venal Flux*, or Effusion from the capillary Vessels: For it is surely Hardship enough for the poor Patient to undergo the Pain and Smart from his Wound, with the unavoidable Symptoms attending, without the additional Torment occasion'd by many of these *Escharotics*, by which both Pain and *Fluxion*, as also *Fever* are excited, together with great *Restlessness*, and oftentimes *Convulsion*.

To avoid all which, there is a much easier *Ligature* Way of answering this Intention, and that is, *of the Vessel a good Remedy.* by making *Ligature* upon, or tying up the Vessel whence the *Hæmorrhage* proceeds, where the same can be come at, as is now frequently practised upon dismembring, and performing certain other *chirurgic Operations*. And this is done by drawing out the end of the Artery, or other bleeding Vessel, usually retracting somewhat after their Division, with a Pair of *Forceps* made purposely for this Use, having a Ligature placed beforehand, with its slip Knot, on the End of the same; then tying the said Vessel close, you thereby secure the Flux of Blood, the Ends of the Ligature hanging out of the Wound, and after a little Time the Vessel being incarn'd, casting off of itself.

To direct you readily to the bleeding Vessel upon an *Amputation*, the *Tourniket*, which was hard twisted during the Time of operating, may be now somewhat slacken'd for its Discovery; in taking hold of which, you are farther to avoid diligently the Nerve sometimes at hand, for

fear of the ensuing *Spasm*, or Convulsion thereby occasion'd.

But if the bleeding Vessel lies out of reach of your *Forceps*, you are to pass a Needle strongly threaded under the Flesh, encompassing the said Vessel, where it lies fit to be thus apprehended, and bringing it out at a proper Distance on the other side, you may sometimes compress the same by your Thread streighten'd, or tied close on the outside for that Intent.

Some of the Antients propose a *wreathing*, or twisting of the Vessel, to stay the Current of the Blood, which is perform'd with a small Hook fasten'd to the Extremity of the Vein or Artery, and twisting it round for several Turns: But this, I think, more troublesome and more uncertain also, since together with the Blood-Vessel some *Fibrillæ* annex'd may possibly be distorted, and the *Motus restitutionis* in both, being promoted by the impelling Fluid, especially in the arterial Flux, must necessarily endanger the untwisting and bursting out afresh,

Of the actual
Cautery.

The last Remedy to stay bleeding is the *actual Cautery*, or hot Iron; of which, before I speak, I must add a Word or two of the late invented one at such Times, the *Ol. Terebinth.* applied scalding hot close up to the Parts, which not only answers the End of a *Restrictant*, by its intense Heat and glutinous Property purging up the Mouths of the Vessels, and so inviscating the flowing Blood, as to inhibit its farther Progress, but also of a *Digestive* to the Wound itself, which I have observ'd in my own Practice, although I should not recommend it where the Patient lives remote from the Surgeon, or Help cannot be had, should there happen to be occasion;

ion; neither yet, I think, where the larger Arteries are divided, and where the Cautery above-mentioned will be more secure, if the Ligature cannot be perform'd, which although it carries greater Terror, has little more Pain than the last mention'd one, the *Ol. Terebinth.* boiling hot; nor half so much, considering all Things, as some of the *Escbarotics* before observed; neither yet is it attended so frequently with those mischievous Symptoms consequent to their Use; such, I mean, as long continu'd Pain, Restlessness, Fever, and Convulsion of the Nerves.

As to the Use of the *actual Cautery*, or hot Iron, I shall say more, when I come to speak of the Wounds of the *Veins* and *Arteries* at the end of our next Section.

I purposely pass by the *corrosive Sublimate* and *arsenical Preparations* to answer this Intention, because I think them unsafe or dangerous; and I shall overlook some others, as the *Blood-Stone*, *Emperical* the dried Toad, thrusting the dismember'd Stump ^{Blood-} into the Bodies of Animals cut up alive; thus *Plac-* ^{Stanchers} *terus* tells us of a Malefactor that had his Hands ^{not to be} cut off, and clapping the Stumps immediately into ^{confided in.} the Entrails of a Cock cut up for that Purpose, the Blood was presently stanch'd; the glutinous Blood of the Animal proving a Sort of Cement to the Vessels of the Man: Also the Vapour of the Blood arising from the same shed upon a hot Iron, by which Dr. Willis informs us, he saw a violent Hæmorrhage restrained.

These, I say, together with the celebrated *sympathetic Powder*, of which many fabulous Accounts have been dispersed, I shall, with some others, also let pass, as little better than Amusement many of them, the rest not fit to lay a Stress upon. And thus far of restraining the Flux

Flux of Blood, concerning which let me only repeat my former Admonition, that it is not every one which requires the more violent *Stiptic* or *escharotic* Medicine, since many Fluxes of Blood, especially from the Veins, and those great ones too, are stopt sometimes with a hard Button of Lint, a Tent, or Dofil, as the Wound requires, laid close upon the flowing Vessel, with a suitable Compress wrung out of *Oxycrate* sprinkled over with Flower, and secur'd by a good *Bandage*, without which, the best of your *Stiptics* sometimes prove ineffectual: Compression indeed of itself, without any Restricting at all, has stopt the most violent of these Fluxes at least for a Time; a remarkable Instance of which, we have given us in the Case of his Excellency *William Prince of Orange*, who in his *Hist. liv.* *Hurt by the Spanish Boy*, as my Lord Bacon relates, where the internal *Jugular* was open'd, could find no Way to stop the Flux of Blood, till the Orifice of the Wound was hard compress'd by Men's Thumbs, succeeding for their Ease, one after the other, for the Space of forty eight Hours, when it was hereby stanch'd: Tho' *Heurnius* delivers the same (I suppose bursting out again) to be suppressed after all others tried unsuccessfully, by means of a Tent arm'd with a Digestive, and wrapt round in *Colcothar*, or the Powder of burnt *Vitriol*.

The third Intention in the Cure of Wounds we told you, was that of bringing together their divided Lips, and keeping them conjoin'd, which when thus accomplish'd, is call'd Healing by the first Intention; and this is brought to pass by stitching, named *Sutura*, together with the Aid of *Bandage* to preserve the same.

Of this *Suture* there are several Kinds, the more usual being the *distinct* and *interrupted*, and the *conjunct* or *continued*.

The *first*, and indeed the most commonly practis'd now, is made by passing a Needle with strong Thread or Silk (first waxed) through the midst of the Wound, beginning from without inwards, and on the Side opposite from within outwards; observing that the Lips thereof exactly correspond, and taking sufficient Hold on each Side, when turning your Thread twice over, and gently drawing them close, you tie a fast Knot, and cut off your Thread, at a Thumb's Breadth's Distance, making another in like manner, and so according to the Largeness of the Wound, fewer or more, leaving the same Space at each End, especially that more depending, that in case of *Suppuration*, or Matter gathering, there may be Way made for the Discharge thereof.

The *continu'd Suture*, call'd otherwise the *Skinner's* or *Glover's Stitch*, because practis'd by those Trades, is us'd chiefly in Wounds of the *Guts*; but, I think, neither this nor the *quill'd Suture* are now so much in Use as formerly, the other more generally taking Place.

There is another sort of this *Sutura continuata*, used in the Wounds of the lower Belly, where both the *oblique* and *transverse* Muscles, as also the *Peritonæum*, happen to be divided, which we have formerly observed by the Name *γαστρο-εμφύια*, or the *Suture of the Belly*, and which we intend to shew, when we touch upon those Wounds.

A *third Suture* is the *twisted*, so call'd, because the Thread, after the Needle is pass'd both Sides of the Wound, and there left, is turn'd several Times

Times round the same, to keep the Division close, and so continued for some Days, till the Agglutination is accomplish'd, which is chiefly used in the Wounds of the *Wind-Pipe*, and very common in the Operation for the *Hair-Lip*, where the other Suture would not be strong enough but ready to cut through before the *Symphysis* is compleated.

Lastly, There remains a fourth Kind, call'd the *Sutura sicca*, or the *dry Stitch*, a very pretty Invention of the Antients, and sometimes of good Service, where the timorous Patient will not admit of sewing up the Wound, or where the Stitches, either for want of taking sufficient Hold, or by reason of the attending Putrefaction, grow rotten, and break their way through the Lips.

This *dry Stitch* is well enough known among the expert Practitioners of *Chirurgery*, to be made by Means of two Pieces of Cloth, of a proportionate Bigness and Figure, suited to the Part wounded, the Cloth being for the most part new with a Selvage on one Side, in which you cut as many Indentures as you intend Stitches, and at a Finger's Distance, whence they are call'd so many *Digitations*.

Having thus fitted your Cloths, and unravel'd some of the Threads on the Side opposite to these *Digitations*, you are to spread each with an *emollient* plastic Composition, such as the *Pulv. Galeæ cum Album. Ovi* above described, or some other *restringent* glutinous Powder; as *Bole*, *Dragon's Blood*, *fine Flower*, *Gum Tragacanth*, *Masticb*, and such like, beat up with the White of an Egg, leaving the Indentures free for the readier Passage of the Needle.

When

When you have laid these Bits of cloth on each side of the Wound, and so near the Brims of it, that after the Selvege of each Digitation is taken hold of by the Needle and Thread, and thereby drawn together, they may also draw along with them the Division, and conjoin the same: They must now, I say, lye still for some Hours, or till they are dry, and adhere firmly to the Skin they lie upon, when the Needle as aforesaid is pass'd through each indented Selvege, and the Sides opposite to each other brought close, in like manner, as if the Lips of the Wound itself had been taken hold of, as in the other kind of *Suture* is practised: And this I think sufficient to have been deliver'd of the *Suture*, whether *wet* or *dry*, which, it must be own'd, is better learned by seeing the same once put in Practice, than by ten Times perusing even the best Instructions; however, for your better Information, I shall farther add these following Remarks relating thereunto.

First, That in superficial Wounds, it is sufficient that you pierce only the Skin itself with the Point of your Needle, but in those more profound, or of greater Depth, where the fleshy Parts are also divided, especially the transverse, and in deep Wounds on the Joints, you are, together with the Skin, to take Hold of the *muscularous* Flesh also, and at such Distance, perhaps two or three Straws Breadth from the Edge of the Wound, as will secure your Stitches from cutting through, till the Union is secur'd.

Secondly, You must take care not to wound any nervous Part with the Point of your Needle, which would excite fresh Pain, and endanger Convulsion also.

Thirdly,

Thirdly, You are not to practise the Suture upon Wounds accompanied with great *Contusion*, *Inflammation*, or where there is *Hæmorrhage*, till the same is secured.

Fourthly, You are to stitch no Wounds that are *venomous*, or proceeding from *poisonous Bites*, or *envenom'd Instruments*, or where there may be Suspicion of any latent Malignity.

Lastly, If the Wound has any Angles, you are always to take your Stitch in those Places.

Of Bandage.

As a farther help to the uniting of these recent Wounds, we made mention of a suitable *Bandage* or *Deligation*, which is truly of that Service, that where the Wound is longitudinal, as for Example, Length-ways of the Arm or Leg, the Lips are brought together, and so kept by the alone Assistance hereof: Nor is the *Suture* so absolutely necessary at these Times; but then you are to make use of a double-headed Roller, and placing the middle thereof on the Side opposite to the Wound, you bring one End over one way, and the other contrary ways, continuing thus as many Circumvolutions as the Case requires, and beginning rather from below, at least on the middle part of the Wound, which having, after this manner, surrounded three or four Times, you may finish the one End below, and the other above.

In Parts less capable of *Bandage*, I have at some Times successfully applied a cross Strap of some *sticking Plaister*, such as the *Adhæsivum* in *Bates's Pharmacop.* set forth by Mr. *Shipton*, which has brought together and secur'd the Lips of the Wound close, especially, where there is little Discharge from the same; and indeed, in all the transverse Wounds, where the Roller cannot be so serviceable as in the former Sort, I would always

always recommend either them or the dry *Suture*, whose Place they in some Measure may be brought to supply, for assisting the Stitches, and preventing of their tearing their Way out.

Since I have made mention of the *Roller*, that necessary part of the *Apparatus* in dressing of Wounds in general, it may be expected I should enlarge upon the diverse Kinds thereof, which, from their several Intentions, and differing ways of Management, receiv'd from the Antients diverse Appellations; thus one was named *conglutinative*, like that with the two Heads first mention'd, where the Wound was Length-ways of the Limb; a second, *retentive*, which seem'd only directed for securing the Dressings underneath; a third, *expulsive*, beginning from below, and so going upwards, so streight as the Patient could suffer it; a fourth, *Apostematis inhibentia*, which seem'd to supply the Place of a *defensative* above the Wound, supposedly to intercept the Humours falling down upon the Part, and prevent *Apostemation*; a fifth, *Apostematis facientia*, which was so streight as by exciting *Pain* and *Fluxion* on the Part, the Humour might be thereby, as it were invited, and an *Abscess* promoted, which was slack in coming forward.

These, I say, with others of the like Kind, more specious than truly advantageous, I pretermitted; because the single or double-headed Roller differently manag'd, as the Prudence of the Artist, rightly considering all Circumstances, shall direct, will sufficiently answer all the proper or necessary Intentions; and in treating of particular Wounds, we may likely have occasion to give some more particular Directions about the same; at present only farther remarking, that they are to be cut out of Cloth, neither new, nor quite worn

worn out, free from darning, and especially har
Seams, as also from the over-officious Diligence
of the good Women, the Overcasting ; having
their Length and Breadth well suited to the Com
pass of the wounded Limb, or other Part, to
gether with the Number of their intended Cir
cumvolutions upon the same. Thus from a Fin
ger's Breadth, and half Yard long, they are re
quir'd to that of a Hand's Breadth, and half
Dozen Yards in Length, according as the *Finger*
Wrist, Arms, Leg, Thigh, or Trunk of the Body
shall want to be therewith encompass'd; the
equal and artificial Management of all which,
must needs say, discovers a *Proficient* in the prac
tical Part of *Surgery* from a *Pretender* to the same
as much as any Thing else.

*Aggluti-
nating
Balsams
for
Wounds.*

When the *Flux of Blood is restrain'd, extrane
ous Bodies* (if in the Way) *remov'd*, and the
Wound, so requiring, thus stitch'd up, the fourth
Intention calls for some proper *agglutinative, or
vulnerary Balsam*, with which to assist Nature
in cementing of the same. And here we have suf
ficient Plenty, many of the *natural Balsams*, and
some of the *Gums*, being serviceable at these
Times; among the former the *Balsamum Tolu
tanum, Peruanum, Gileadense, Cobaiba* ; as among
the latter, particularly and very singularly the
Gum. Elemi, which is a prime Ingredient in the
famous *Liniment of Arceus*.

Of *artificial* ones likewise there are as great
Variety; for as before we observ'd, each Person
to boast of his particular *Stiptic* for restrain
ing the *Hæmorrhage, or Flux of Blood*, so not
less of their *vulnerary Balsams*. Thus as from
their *Virtues*, the one is call'd *Mirabile*, another
Cæleste, a third, *Polycrestum*: So from their *Col
ours*, we have a *Balsamum aureum, citrinum, ni
grum, ceruleum, viride*.

For my own Part, in twenty Years and upwards, I have rarely us'd any other than the foresaid Liniment of *Arcæus*, and the *Balsamum Terebinthinæ*, with this latter sometimes mixing a little *Ol. Hyperici*, in the hot and dry *Intemperies*, and adding to the former a somewhat larger Proportion of the *Gum*, than is found usually in the Composition of the Shops, or entirely leaving out the *Axungia*, and adding a little of the *Ol. Hyperic.* in its Place: However, in this Matter, every Man may please himself, provided he is well assur'd by Experience, that his Medicine will answer the Intention, as well as that of another Person.

The following are recommended by some of our best Practitioners.

Hildanus deservedly praiseth this simple one.

R. Ol. Rubri & Crassi Terebinthinæ, violento igne destillati, ℥iij. Gum. Elemi ʒß. Solve gradatim super ignem, & coletur pro usu.

And this, saith he, I use also in Ulcers after Digestion, and in *Fistula's* after Mundification.

By this *Ol. Rubrum*, 'tis plain he means the same with our *Balsam. Terebinth.* which is that thickish rubicund Oil, coming over the Retort after Distillation of the Spirit, the Fire being for that Purpose increased. This Balsam is now drawn, and sold by the Chymist for the Surgeon's Use: which I have rather remark'd, for that there are other Balsams, and good *Vulneraries* too, some of them, that go by the Name of *Balsams of Turpentine*, prepar'd *ex Terebinth. Ven. Gum. Ele-mi, Ol. Hyperic.* to which are added the *Pulv. Mastiches, Myrrhæ, Aloes*, or the like; some

Forms of which you have in the Translation of the old *Pharmacopœia Lond.*

Mr. Thomas Page, a *Quondam Master*, and a worthy Member of your Company, allowed of all an excellent Artist, used frequently this following :

℞ *Liniment.* *Arcæi* ℥ij. *Terebinth. Ven.* ℥ij. *Ol. Hyperic.* ℥℞. *Myrr. Aloes Mastich. ana* ℥ij. *Sang. Drac. Boli Ver. ana* ℥j. *Spir. Vini cum Flor. Hyperic. bene tincti ac saturati q. s. m. Unguentum.*

This seems to be borrowed from Dr. Read, with some little Variation, and an Omission of the *Pulv. Iridis Florentini*.

The following also of Mr. Wiseman is well enough compounded.

℞ *Tereb. Ven. Resin. Pini, Ol. Hyperic ana* ℥ij. *Sarcocol. Myrr. Thuris ana* ℥i℞. *Ceræ, q. s. pro Consistentia Unguent.*

Sylvius extols the *Bals. Sulph. Terebinth.* alone above all others, some mix the same with *Arcæus's Liniment* ; but I shall not trouble you with more *Formulæ*, since *frustra fit per plura quod fieri potest per pauciora* : However, as to their Use, I shall leave you the following Cautions.

1. That none of these *Agglutinatives* are applied in Wounds complicate with Contusion, or which are not likely to be healed by σύμφορις, called, as we before took Notice, the *first Intention*, which are generally the simple incised Wounds of the Skin or Flesh ; nor in such, unless you are likely to be assisted by that *Balsam* of

of *Balsams* a good *balsamic Blood*, without which ^{A good} all others, whether *natural* or *artificial*, will do ^{Blood the} little Service, and with which alone, many seem- ^{best Bal-} ingly desperate Cuts are oftentimes cemented; ^{sam for} the Blood of such Persons serving not only as a ^{Wounds.} *Stiptic* to stay the *Hæmorrhage*, but a *Balsam* also to heal the Breach: And the Feats that are ascribed oftentimes to the famous *sympathetic Powder* by *Cardan. Porta, Basil Valentine, Helmont*, and our *Digby*, it is my Opinion, have been brought to pass solely by this *Balsam*, though if the Powder were made use of, the same has run away with the Credit of the Cure.

Briefly, in all Wounds that may happen to require *Suppuration* or large Digestion, you must forbear these *agglutinating Balsams*, at least, till such Points are gain'd; for which End that common *Digestive* of the *Terebintb. cum Ovi Vitello*, or the *Liniment of Arcæus*, with, or without the *Ol. Hyperici*, conduce as well as any others.

2. That the Way of Application be by an armed Probe, or Feather, which is still better, dipt in the *Balsam*, first warmed in a Spoon, and therewith besmearing not only the Lips or Edges of the Wound, but letting, where the same was deep, some Parts thereof sink down between the Stitches made therein, over which a suitable Pledget faced within the *Linim. Arcæi* a Plaister of *Diapalma* to retain the same, with a soft Compress and *Bandage*, where the Part will admit, on the outside of all.

When the Discharge is inconsiderable, once in a Day or two may be sufficient to inspect and renew the Dressings; but if much *Quitture* flows, it must at least once a Day be look'd upon and the Lips gently compress'd to get out the same,

lest the outside Edges of the Wound happen to agglutinate, a thing not uncommon, whilst the Bottom is still disjoin'd, and full of Matter, and from whence Apostemation; also a Necessity to cut out the Stitches, if not to dilate the Wound, at the best proceeding as in contus'd Wounds, or *sinuous* Ulcers dilated, or such as having Loss of Substance require *συσάφρωσις*, which is called healing by the *second Intention*, that is, by *incarnating*, or generating new Flesh: But this is sometimes owing to the too slight hold you have taken with your Needle, leaving the Bottom of the Wound disjoin'd, whilst you close it only at the upper Edge, or for want of suitable Compress and Deligation.

If then, whilst you are thus treating of the Wound, you find your Stitches to give way, and cutting through before the Union is effected, which is usually accomplished in a Week's Time, or thereabouts, it may be necessary to secure the gaping Lips, either by the *dry Suture* before describ'd, or the cross Strap of *Emplastrum adhaesivum*: Nay, if there be room for the same, to make fresh Suture in some other Parts; but when it so happens, that notwithstanding your Endeavours, the Putrefaction increasing together with the *Pus*, you cannot this way conjoin the Lips of the Wound, you must then let go your Stitches, and fill up the Cavity with soft Dossils dipt in the warm Liniment of *Arcaeus*, and after Digestion, proceeding to deterge or cleanse, as in contused Wounds will presently be observed.

The Symptoms of Wounds in general, how provided for. The last Intention we laid down for the Cure of Wounds in general, was that of obviating the attending Symptoms; such principally are Pain, and its Concomitants *Fluxion*, or *Tumour*, *Inflammation*,

Inflammation, symptomatic Fever, Watching, Syncope, Convulsion, and sometimes Palsy.

In Regard to the first, I mean the *Pain, Phlebotomy*, or letting Blood, especially if the Wound be not freely of itself, may be found expedient; by which not only the ensuing Flux of Humours will be in some Measure call'd off, or averted, but the Circulation thereby more regularly carried on, the Fever also prevented; after which let the Parts all round be embrocated with some *lenient, repelling, anodyne* Oil or Ointment, such as the *Ol. Rosarum cum Aceto*, the *Oleum vel Unguentum Sambuc.* Where the *Pain and Inflammation* are great, *Cataplasms* are prescribed of the *Mica Panis cum Vitellis Ovorum*, or prepar'd, as we directed in the Beginning of the *Phlegmon*; but these, however *lenient and anodyne*, are too relaxing, and in the stitched Wounds, I think, not so proper, for that by their Humidity they may retard the Agglutination, and rot the Suture: Yet gentle Fomentations may be admitted, prepar'd of the milder *Discrepant*s, mixt with *Restringents*: A Stupe wrung out of warm Claret has sometimes served me upon the like Occasions.

For *Overwatching* and *Inquietude*, a *Paregoric* may be sometimes allowed at the Hour of Rest, as thus:

℞ *Aq. Flor. Paralys.* ℥i℥. *vel* ℥ij. *Syr. de Meconio* ℥℥. *vel* ℥vi. *secundum Vires ac Ætates*, *Aq. Peon. C.* ℥j. *vel* ℥ij. *m. f. Haustus.*

But before you give this or any other *Hypnotic*, you must always take care to empty the Bowels by the common emollient Clyster, or some gentle Lenitive of *Cassia, Diaprun. solut.*

Elect. Lenitiv. taken by the Mouth, which, according as the Patient happens to be costive, is to be repeated.

The *vital Indication* also must not be forgotten, proper *Cordials* being ready at hand, in case of fainting, from Loss of Blood or *Pusillanimity*, which, in the Absence of the Physician, may be compounded *ex Aquis Melissæ Buglos. Borag. Ceras. Nigr. vel instar, & loco omnium, ex Aq. Lactis alex. cujus ℥ss. addentur ℥ij. Aq. Angel. comp. Pæon. C. Mirabil. Stephani vel aliæ similes cum tantillo Sacchari albi Chrysalin. ad placitum edule.* Or a Pearl *Jalap* may be prepared thereof, by putting in ʒj. of the *Margarita præp.* or omitting both the Pearl and Sugar; in the same Composition may be dissolved a Drachm of the *Confect. Alkermes*, with half an Ounce of *Syr. Caryophil. vel de Cort. Citri.* Of these may be given three, four, or five Spoonfuls at any Time, when faint or languid.

The *Fever*, which at these Times is *symptomatical*, will be provided for by the *Regimen*, which we shall now take Notice of, having first hinted to you, that the most formidable Symptoms attending these Accidents, are the *Convulsion* and *Palsy*: The first most commonly owing to some *nervous* or *tendinous* Part hurt, the last to the Division or Compression of a single Branch or *Plexus* of the Nerves, conveying both *sensitive* and *locomotive* Power to the said Parts; of both which we shall take farther Cognizance, when we speak particularly of the Wounds of these Parts; in the mean Time we must not forget so material a point as that of *Diet*, and the other *Non-naturals*, so called by Physicians, on which I can assure you great Stress is laid at such Times, and without which, in some depraved or

*Regimen
of wounded
Persons.*

ill Habits of Body, even the slightest Hurts have often proved fatal to the trespassing Patient. For although *Hyppoc.* seems to make large Concessions to the *Honings* or *Longings*, as we may say, of sick People, as well as their *Habits* or *Customs*, in that *Aphorism* of his, *Paulo deterior & potus & cibus, jucundior autem, eligendus potius quam meliores quidem sed ingratiore;* yet knowing well that at these Times Mens Bodies were in such a State, he says also, *impura Corpora, quo magis nutriveris, eo magis lædes.* But here also I think we shall not need to be particular, having formerly discoursed of these Matters, when we treated of the *inflammatory Tumours*: The *Regimen* being now exactly the same, and with the like Proviso in allowing somewhat to old, though evil Customs, whether we respect the *Air, Meat, and Drink, Sleep, Excrement, Passions of the Mind, and Rest*; as to the last of which especially, let it be noted, that we mean not only the Body in general to be kept still and quiet, but the wounded Limb particularly, which is to be so placed, as may give least occasion for Fluxion of Humours to the Part. Thus the wounded Arm, Hand or Finger is to be supported with a Scarf or Napkin: The Thigh, Leg or Foot must rest upon a Couch or Chair, or, which is preferable to both, the Bed. And this is all I have to offer concerning simple Wounds, which are healed by Agglutination of their Lips, without any *intermediate Substance*, a Property belonging more particularly to the incis'd Wound: Nor is it absolutely necessary that each of these should be stitched up; since we find many of those cut Lengthways of the Fibres, are by Means of good *Bandage*, and a proper Agglutinative, united without; though should I say strictly without any

Medium, I might possibly mistake; for that the balsamic Particles of the Blood coming between, perform much the same Office as the Joiner's *Gluten* to the two Pieces of a Board thereby conjoin'd.

The Wounds of the Face and Neck, more particularly of the *Fair Sex*, where every little Scar is accounted a Blemish to their Beauty, and who usually set a higher Value thereon than any Thing else, are such as most commonly require the *Suture*, together with the large transverse ones of the Joints, and other Parts of the Body. Some Writers tell us, that a Wound which is not half an Inch in Length requires no Stitch; but if the same be on any Part of the Face, it may notwithstanding admit one.

*Contus'd
Wounds.*

We now come to Wounds complicate with *Contusion*, such as stand in Need of a more discernible *Medium* to repair the Breach, I mean, by the Generation of new Flesh, whence their way of healing is term'd *Syffarcosis*. Of this Kind are not only the Generality of contus'd Wounds, but many of those which are lacerated or torn, where the Stitches give way; also where the Flesh itself is cut off by the Instrument: And here also not only the *Hæmorrhage* is to be stay'd, *extraneous* Bodies, if any lodg'd therein, remov'd, but the Wound instead of being stitched up, as in the simple incis'd ones, to be *digested*, afterwards *deterg'd* or cleans'd, then *incarn'd* or fill'd up with new Flesh, and last of all, *cicatrised* or skinned over.

But where the *Contusion* is not very great, the Wound transverse, and gaping open, a Suture sometimes is admitted here also, to bring the Lips nearer to each other, that the Division may be the sooner made up, the Cure thereby expedited,

lited, and the Scar, though not possible to be prevented, made however the less unsightly; whereas on the other hand, if the Bruise is very considerable, as in the *Wounds* made by a *Club*, an *Iron Bar*, a *Stone* or *Brick*, where there is a very blunt, or no Edge at all, and the Force inflicting very strong, you must by no means make a Stitch, for fear of bad Accidents, as *Inflammation*, *Abscess*, *Gangrene* or *Mortification*: Nor indeed would it be to any Purpose, since the con- fused Lips, whilst the Wound is *digesting*, grow- ing putrid or rotten, together with the *Sutures*, would throw off in *Sloughs*.

Before I proceed farther upon this Subject, I cannot well pass by a modern Pretence to healing even of these Wounds more expeditiously than heretofore, without waiting for their *Digestion*: *All contus'd Wounds to be digested.* An *Hypothesis* advanced, I can't say how much to the Author's Credit, but, I think, very little to a publick Utility; I wish I could say it hath not prov'd pernicious. Having formerly made Experiment of this *famous Vulnerary*, I found it would not answer, and was therefore forced to change it for a good old *suppurative* or *digestive* Medicine, lest my Patient should have seen Reason to have chang'd his Surgeon.

Without envying the Author his great Discovery, I would caution the young Practitioner that he be not drawn into Mistake by any such *new Luminaries*, lest they prove unto him so many *Ignes fatui*, and bewilder his Understanding, to the Risque of many Limbs, as well as Lives intrusted with him: But that he keep in this Respect to the good Method of the ancient, as well as that of the best Practitioners at this Time, in these *contus'd Wounds*, to forward all he can their *Digestion*, without which he must expect

expect no Ease or Safety, either to the Patient, nor yet any Advance to a Cure, unto which this truly is the first Step.

Digestives. I think it needless to recite many Medicines for this End, the old one *ex Terebinth. cum Ovi Vitel.* mixt up with a little *Unguent. Basilicon*, especially in Flesh-Wounds, is still in Request, but ought to be made fresh, when Occasion calls for the same.

Arcæus's Liniment with more or less of the *Basilicon*, as the Part would allow, with a little of the *Balsam. Terebinth.* for the *nervous Parts*, also the *Ol. Hyperici* in some others, melted down therewith, have generally served my Purpose; and when the *Gleet, Sanies, or Ichor* usually flowing from the Mouths of the Vessels, or shed in the Interstices of these contused Wounds, is changed into a more kindly and laudable *Pus*, the Signs of which we are told are, that the same be *Album leve & æquale*, I have then sprinkled a little *Præcipit. rub.* on the loosen'd or separating *Sloughs*, where I have found them large and thick, or mixt the same with my *Digestive* when superficial, which hath yet farther advanced the *Digestion*, kept down luxuriant Flesh, and serv'd also excellently to *deterge* or cleanse the Wound, when after to repair the Loss of Substance, the *Liniment* by itself, or with a little *Basilicon*, according to the Nature of the Part, will serve for an *Incarnative*, which may be still made more *sarcotic*, by mixing the fine Powders of *Myrrh, Aloes*, and *Sarcocolla*, especially if the same is difficultly regenerated: But where you proceed rightly in the Use of your *digesting* and *deterging* Medicines, these will be rarely wanted, unless the attending *Intemperies* is over-moist, as in some lax and *leucoplegmatic Habits* may fall out.

Sarcotics.

When

When you have thus repaired the Breach, or rather a little before the Flesh grows up to the Brims, if the same especially rise up too fast, there remains now only to induce a Scar, or in other Words, to dry up the Superfice of the Wound or Ulcer into a new sort of Skin or Cover, the old one not being recoverable: But when the Incarnating proceeds slowly, it may be permitted to lie even before you set about its Exsiccation.

In order to this End, diverse *Epulotics* have *Epulotics.* been invented, among which the compounded ready prepar'd in the Shops, are the *Unguent. De-ficcativum Rubrum, de Calce, de Tutia, Diapompholigos*, and to all which, as I have intimated in my Treatise *de Morbis Cutaneis*, I think I may very justly give Precedence, my *Ceratum de Lapide Calaminari*, there as well as here published.

But if more drying Medicaments are wanted, the fine Powders of the *Lap. Calam.* itself, and the *Lap. Tutia* may be lightly strew'd round the Edges, from whence all good Skinning first of all begins, at least should do so, the said *Cerate* being laid over as a Plaister: Or which at some Times better answers than all others, and is truly worthy to be taken notice of, a Pledget of dry Lint.

This also failing, you are carefully to consider the Condition of your Wound, and the Nature of the Flesh arising therein, whether it be not too pappy, soft, or spongy, as happens generally where the Bone underneath is concern'd, or some *Sinus* lies conceal'd. If the Basis be sound, and your Superstructure rotten, you are to correct this spongy Flesh, strewing thereon your *Præcipit. rub.* that a firmer may grow up in the Place: Or if a *Sinus* be discover'd, the same must

must be laid open, that you may come at your Work: If the Bone be concern'd, making way also to the same, as we shall direct in the *sinuous* and *carious* Ulcer: But if neither of these are your Hindrance, only the moist *Intemperies* interrupting; you may, after purging and correcting such Intemperature by a proper physical *Regimen*, have Recourse to the more exsiccating Topics. Such are a gentle Touch of the *Vitriol* and *Alum* Stones, or a Pledget dipt in, and gently express'd from their Solutions: Also a strong *Aq. Calcis*, a Solution of *Crollius's Lapis Medicamentosus*; but of this more hereafter, when we come to treat of *Ulcers*.

Symptoms
of Wounds
contus'd.

The Symptoms accompanying these *contus'd Wounds*, are of the same Kind as the former, but more dangerous, by Reason of the Contusion, which subjects them not only to greater Pain, *Flaxion*, and *Inflammation*, but thereby endangers *Abscess* or *Apostemation*; and, which is still worse, *Gangrene* and *Sphacelus*, or Mortification; which will oblige the Artist to a more careful Inspection, to proportion the *actual*, as well as the *potential* Heat and Strength of his *Digestive* to the Sense of the Part; to embrocate all round with some *anodyne* Oils or Ointments, in order to take off the *Tension*; to comfort or cherish the native Heat, and breathe forth the Humours, by hot Stupes express'd from a *discutient Fomentation*; convenient *Bandage* also, where the Part will allow, to intercept or moderately repel the Influx, with a suitable Compress after *Digestion*, to unite any Sinuosity, or hinder Matter lodging in the Parts: In a Word, if *Abscess*, *Gangrene*, or *Sphacelus* should ensue, to proceed as in our first *Section* was directed, concerning the *Pblegmon* thus terminating.

I shall

I shall not need, I think, to enlarge farther than I have done already, as to the *Regimen* in the *Non-Naturals*: For in respect to *Diet* more particularly, if in the simple Solution of Continuity, we directed that the same should be what our ancient Authors call *Tenuis*, it will follow, that in those more complicate, and subjected to more dangerous Accidents, it must be still *Tenuior*, not *Tenuissima*, allowing something to *Custom* at *second Nature*.

In regard to the general *Prognostic* of these contus'd Wounds, there is one thing especially worth the young Practitioner's Observation, that is, where great Tumefaction just before attended, if the same sinks, or of a sudden disappears, the Wound has a livid Aspect, crude and undigested, the Flesh pappy, and a blackish Sanies, like the serous Humour put up in the Vesications of a gangren'd Part, issues out of the same, there is always great Danger, not only of the Limb, but the Life also of the Patient.

In the Number of contus'd Wounds, we may *Gun-shot* rightly reckon those made by *Fire-Arms*, call'd Wounds *Gun-shot*, of which the Ancients had such a mistaken Notion, as to fancy a certain Venom or Poison did accompany the same; and upon this conceit, tormented the poor Patient with their very, spirituous and hot Remedies, under Pretence of correcting the Malignity therein conceal'd; by which many in those Days were spoiled in their Limbs, whilst others lost their Lives through the like Ignorance: When a Wound in itself otherwise inconsiderable, was by this way of Management inflam'd, the Symptoms heighten'd, and a Gangrene or Mortification brought on under a foolish Expectation of obviating the same.

Whereas,

Whereas, had they rightly apprehended the Nature of the Ingredients, the *Nitre*, *Sulphur* and *Charcoal*, either separate or conjunct, when it is called *Gun-Powder*, together with that of the Bullet, which is Lead most commonly or Iron; they might easily have understood there could be nothing more than the Force of Violence at the Time of Explosion given to those Bodies, that could make the Difference between them and other contus'd Wounds, the Heat of the same being scarce, if at all perceptible; and that neither is there any burning in the Case where the Subject is out of the Reach of the fired Gun-Powder, or stands not either at the Muzzle of the Piece let off, or over the Pan where the Flame is first inkindled. It was indeed probable enough, that the Sight of these Wounds, as Mr. *Wiseman* observes, looking bluish or livid, not from the Heat of the Bullet, but the sudden Compression of the Vessels round about, and consequent Stagnation of the Blood therein, led them into those formidable Apprehensions of *Venom*, *Gangrene*, and *Mortification*.

It must be own'd, that the Wounds of this Kind are usually attended with the most unhappy Accidents and dreadful Symptoms; yet they are not owing properly to the Nature of the Bullet or Powder, but to the Splinters and Fragments of extraneous Bodies, which together are impell'd and shiver the Bones, as also to such Shivers of the Bones themselves, the Ligaments and Tendons being likewise sometimes torn asunder, as well as the musculous Parts; which will require the utmost Diligence, not only in removing the foreign Bodies, but such Fragments of Bones that are entirely separate, and lie pricking the Parts adjoining.

adjoining, encreasing the Fluxion, and hazarding *Convulsion*, *Gangrene*, and *Sphacelation*, at the best *Apostemation*, whilst other Parts of the fractured Bones are carefully reduced into their proper Places, and there secured, as in *Fraètures* complicate shall be hereafter observed.

From hence it will appear, that the chief Regard, after the drawing forth *extraneous* Bodies in these Accidents, is, overlooking the supposed Fire or Venom, to promote their *Digestion* with some proper maturative Application; such as the old one *ex Terebinth. cum Ovi Vitello*, to which may be added in dry Habits, a little *Unguent. Basilicon*, also the *Ol. Hyperici*, or when seated among the *nervous, membranous, tendinous, or ligamentous* Parts, the *Balsam. Terebinth.* in case of greater Putrefaction, especially in moist Habits, its Oil also in suitable Proportion to the Sense of the Parts hurt.

After *Digestion* of the Wound, in order to *decharge* or cleanse away the *Sloughs*, you may sprinkle on the *Precipitate*, or mix the same with your *Digestive*, then arming your *Dosils*, *Pledgets*, or large *Tents*, in case of Perforations, with the same you may dip them in the warm *Liment of Arcæus*, which in these Cases, and at such Times, is no despicable Balsam, to incarn or fill up with Flesh, proceeding farther to cicatrize, as in other contus'd Wounds we have directed.

The Means by which to draw forth Bullets, or other foreign Bodies, with certain Cautions about the same, we have already also laid down at the beginning of this *Section*.

A Countryman, at the Close of a Winter-HIST. IV. evening, being come within Sight of the Town's end, was call'd upon by a Foot-Soldier upon the Causeway

Causeway to stop, at which, looking towards the Place, and seeing a Musket presented, he spur'd on his tired Jade to get clear; whereupon the Foot-pad jumping into the Road, discharg'd his Piécé, but not finding the poor Man drop, he made over into the Fields for his Escape: The Countryman was first dress'd by a Barber, pretending however (as they do most of them upon the Skirts of the Town) to the Practice of Surgery: The next Day one of his Friends desir'd me to go to see him at his Inn; where, upon Examination, I found the Ball had enter'd just above the Spine of the *Scapula*, and came out through the upper part of the *Clavicle*, which it had shiver'd in making way.

The Wound had been plugg'd up with Tow dipt in some green Balsam, and hard shov'd in from one Orifice to the other, which being drawn forth, one might easily see Light through the Cavity: The Orifices look'd each of a livid Complection; however, not at all terrified thereat, when I had fomented the Parts with a warm Stupe or two, express'd from Wine call'd for on that Account, having made up a soft Tent of Lint of fit Size, about an Inch or somewhat more in Length, spread round with the *Terebinth. Ven. cum Ovi Vitello*, I then dipt the same in a melted Mixture of *Liniment. Arcæi*, and about a fourth Part of its Balsam (with a Feather moisten'd therein, dropping first a little thereof into the Wound) and introduced it lightly by the Orifice behind, but by no Means distending the same therewith. After this, endeavouring to set the fractur'd *Clavicle*, upon sinking the Ends of the Bone, some small Splinters lying in the way I took them out with my *Forceps*, and re-plac'd the rest: Then covering the Bone with dry Lint

and the same *Digestive* on the outside, I fitted a gentle Plaister-Compress to keep it down, and a double-headed Roller of sufficient Length to cross from each Shoulder, and secure it.

After the third Dressing, the *Sloughs* began to loosen, and *Digestion* to appear round the Edges of the backward Wound, which being rather slanting, and more depending than the other, favour'd the Discharge of Matter, and from whence we had great Plenty thereof at about ten Days end; whilst that upon the *Clavicle* inflam'd, and was very painful, so that not suffering the Compress, neither yet so streight a Bandage as the starting Bone requir'd, I contented myself with a retentive-one for some few Days, continuing the *Digestive ex Linim. Arcæi & Bals. Terebinth.* till the Inflammation going off, and the Wound digested, I tried a second Time to depress the rising *Clavicle* by a Compress, and stricter Deligation. Yet the Wound being so exceeding tender, by Reason of some angular Parts of the broken *Clavicle* not suffering, I was forced to desist, and rest content with the easier Rolling, leaving the Work to Nature, the backward Wound being mundified with the *Precipitate* and *Liniment*, fill'd gradually up with Flesh; nor did I use any *vulnery Injection*, so call'd, and practis'd by some in the like Cases, all the Time; only to prevent the too hasty closing up, in Case any Fragment of the *Scapula* should be shut in, and an *Abscess* occasion'd, I pass'd up a small *Cannula*, but finding no Discharge thereby, after a Fortnight's Time, the same was extracted, and the Wound healed up presently after, without at least any visible *Exfoliation*. But the *Clavicle* being more in Sight, and much discolour'd, there was a Necessity, I perceiv'd, of expecting either a *Desquamation*,

or the coming away of Part of its whole Substance, which occasion'd a much longer Time; for after waiting upwards of six Weeks, continuing my dry Dressings and Digestive, I drew forth a large Piece of the same, separated in its whole Substance: The Head of the *Humerus* inclining to fall inwards, I contriv'd a Tin Plate quilted, and so placed under the Bandage as to keep out the same, at least to prevent its falling more towards the *Jugulum*, till the new Flesh was harden'd into *Callus*: This he wore for several Weeks after the Wound was healed up, which prov'd a stubborn Work, painful, and subject to Fluxion, and not suffering the least Pressure till the Bone was extracted. It was many Months before he recovered any tolerable Use of the Arm, and is still, as he complains, tied down and impeded as well in a free Elevation thereof, as also in the putting his Hand behind him, being in advanced Years, the Change of the Season giving him also some Pain and Disturbance round about the Shoulder.

Many are the Instances set down by Authors of these Wounds, particularly *Valeriola*, *Marchet*, *Scultet*. *Tagaltius*, *Albucasis*, *Alsaravius*, *Alex. Benedict*. *Fallop*. *Cabrol*. *Pareus*, and sundry others handling this Subject, where it is most surprising to consider the Methods taken by Nature to free herself after long Time from Things foreign; such as Woollen and Linen Rags, Bullets, Nails, Splinters, &c. forced into the Body.

HIST. lvi. Thus *Alexander Ben.* aforementioned, observes a *Greek*, whom he names as a Person well known to him, who, in the Siege of *Chalcis*, was by an Arrow wounded about the Temples, and carried away Captive by the *Turks*, with his Wound, after a sort heal'd up, where he lived a Slave

a Slave twenty Years, at last was freed and came to *Cydon*, and five Years after that, in the Summer Time, as he was washing his Mouth with cold Water, being seized suddenly with a violent Sneezing, there issued out at his Nostril on the same Side, a Piece of the Arrow of half a Finger's Length, with an Iron Head, leaving no Injury or Scar behind.

I my self have seen a Nail, near the Thickness and Length of my little Finger, forced (in an Engagement) from the Plank of a Ship, into the internal *Canthus* of the Eye, when the Wound closing up, and nothing suspected of the Matter, after many Years, an *Abscess* being formed, the same was extracted. I took out a Piece of Tobacco Pipe two Inches long, which being broke off, had lodg'd under the *Orbit* (the Wound closing up) for many Months, till shewing itself at the Corner of the Eye it was drawn forth: But the most remarkable Case of this kind I remember to have read of, is that communicated to the *Royal Society* by Dr. *Fielding*, of a Bullet lying thirty Years in the Head, which, as a notable Piece of History, I will borrow thence in the Doctor's Words.

‘ At the first *Newberry Fight*, at the Time of HIST. lviii. the late Civil Wars, Dr. *Robert Fielding* was shot by the right Eye on the *Os Petrosum*, by the Orbit of the Eye to the Skull, which was likewise broke, with great Effusion of Blood from the Wound, Mouth and Nostrils.

‘ The Surgeon carefully probing the Wound for the Discovery of the Bullet, but failing of his Intention, on the third Day after the Shot, placed him horizontal to the Sun, by which Means, depressing the broken Skull with

‘ the Probe, he could see the Palpitation of the
 ‘ Brain, but could not discover the Bullet.

‘ When the Doctor began to grow old, his
 ‘ Mouth clos’d up, and so continued for the
 ‘ Space of half a Year, till many fractur’d Bones
 ‘ were come out of the Wound, Mouth, and
 ‘ Nostrils; and after, whensoever a Scale of
 ‘ Bone was to come out, his Mouth would close,
 ‘ inſomuch, that ſeveral Years after, he prognos-
 ‘ ticated to ſome Friends that a Bone was then
 ‘ to come out, which continued ſo for fix or ſe-
 ‘ ven Weeks, at which Time, finding an itch-
 ‘ ing in the Orifice of the Wound, with his
 ‘ Finger he felt a Bone, upon which he made
 ‘ known to ſome Friends then preſent, that they
 ‘ would ſee him open his Mouth, and taking out
 ‘ a Bone no bigger than a Pin’s Head, he imme-
 ‘ diately open’d his Mouth.

‘ At the ſecond *Newbery* Fight it healed up,
 ‘ no Art could keep it open; after this, for the
 ‘ Space of ten Years, or more, a Flux of ſani-
 ‘ ſous Matter iſſued out of the right Noſtril, and
 ‘ then ceaſing there, it flowed from the left for
 ‘ ſome Years longer. At length, for the Space
 ‘ of two Years or thereabouts, the Doctor would
 ‘ ſometimes find a Pain on the left Side, about
 ‘ the Almonds of the Ear, which he attributed
 ‘ to cold, but more eſpecially after riding in a
 ‘ cold dark Night, which occaſioned a kind of
 ‘ Deafneſs too; and having ſtopt his Ear with
 ‘ Wool to recover his Hearing, one Day, either
 ‘ writing or reading, ſuddenly a Huff came in
 ‘ the Ear, which made him ſtart, and the man-
 ‘ ner not to be expreſt, unleſs you can imagine
 ‘ a *Vacuum*. This happen’d about *March* or *A-*
 ‘ *pril* 1670. Upon this, all that Side of the Cheek

hung loose, as though *paralytic*, and under the Ear might be felt a hard Knob.

After this, *Tumour* upon *Tumour* appeared upon that Side under the Jaw-bone, which occasion'd his consulting some Physicians, two at one Time, one of which suspected the Bullet, which, considering the Shot, they thought not credible; at length the Tumours coming to the Throat, if he held up his Head a little, it seem'd as if one with a Hook did pull down the Jaw-bone, and if any thing touch'd the Throat, was as painful as if prickt with a Handful of Needles. Being at last persuaded to make some Applications, a small Hole appeared, after that another, and a third near the *Pomum Adami*; by these the Bullet was discovered, and cut out in *August* 1672. We now proceed.

Of some Affinity hereunto are the Wounds *Wounds* we call *lacerated*, especially those owing to Falls *lacerated*. from on high, against a ragged Pavement or Flints, also the Wheel of a Coach or Cart, the Kick of, or Fall from a Horse, with great Violence in his Speed.

At which Times, having carefully cleansed the Wound from any Dirt, Sand, Gravel, or whatever may be got into the same, with a Sponge wrung out of Wine; you are then to consider, being first assur'd there is no Fracture, if there be any Probability of reuniting the torn Parts, or the Hurt having been some Hours receiv'd the same also divided in such manner from the sound, as to be now in a perishing Condition, it is by no Means practicable, and there be not a Necessity of Excision before you can proceed: If the *first*, the musculous Flesh and Skin are to be laid in their

proper Places, or where they have been torn from, when by several Stitches proportionate to the Size of the Wound, you endeavour to retain them there, not so much in Expectation of a *Symphisis*, or Agglutination of their Lips, which is scarce attainable, as of their Union underneath. For which Reason you are not to strain your Suture so close as in simple Solutions, or incised Wounds, healing strictly by the first Intention, for then they would presently tear through; but leaving sufficient Space for the Discharge of Matter, you are to lay down soft Dosils of Lint, dipped in the warm Digestive of *Linimentum Arcæi cum tantillo Balsam. Tereb. vel Olei ejusdem, si minatur Spbacelus*, in the Interstices thereof, observing at the Times of Dressing, to make use of some spirituous Fomentation, or Flannels express'd from hot Wine, which does as well, not forgetting proper Compress and Deligation, which more than any thing besides contributes to the Union, and consequently the Curation of these Wounds. But if the *second*, you are immediately to divide so much of the said Flesh or Skin as you shall find now mortified, replacing the rest, if the whole is not already perish'd, and hastening Digestion, proceed in repairing the lost Substance, as we have before, and shall perhaps hereafter have Occasion to observe.

And upon this I take leave to put you in Mind, that where great Portions of the Muscles, together with their Blood-Vessels and Tendons, are so separated as to endanger the Limb, it is your Duty to call presently for some of the *ancient Masters* or *Wardens* of your Company to your Assistance; where, after mature Deliberation, if it be found necessary, you are forthwith to proceed to *Amputation* of the Limb, before your Patient's

Patient's Strength and Spirits are exhausted, which by the Delay only of some Hours, but much more a Night or Day, the Pain and Flux of Humour encreasing, bring on *Lipothymy*, or Fainting; or else *Rigours* with *Convulsion* succeeding, portending Death, quickly after carry off the Patient, who, if dismember'd presently, might have had a Chance that way of compounding for his Life.

These Accidents happen more commonly in Sea Engagements, where by Means not only of the single *Bullet*, but *Chain-Shot* and *Splinters* from the Decks, or other Parts of the Ship, not only the *Muscles*, *Ligaments* and *Tendons* are tore asunder, but the *Bones* miserably shatter'd, with *extraneous* Bodies lodged betwixt the Joints, and in other Parts, where not being in condition to come at, or to be extracted, they lie pricking the *Membranes*, and other *nervous* Parts, exciting, in little time after, those deadly Symptoms, which now render the Operation abundantly more hazardous than it would have been in the Heat of Blood and Action; and for want of which, thus timely enterpris'd, it is beyond Controversy, that many a brave *Sailor* and *Sea-Commander* too have lost their Lives, whilst others in haste and hurry, through Ignorance, and sometimes the want of good Convenience, but I cannot think from any sinister or selfish Views (as a late Author would insinuate) have rashly been deprived of theirs, who under better Management might have been preserved: However, as a Matter not so directly in the way of our present Discourse, which is more particularly intended for the young Practitioner here at Home, we shall pretermitt all farther Remarks upon the Practice at Sea, and prosecute our Subject.

There is yet another Kind of *lacerated* Wounds, as we hinted at the Beginning of this *Section*, which are made by *Nails*, *Tenterhooks*, or such like tearing their way through either the Skin, or therewith also some Portion of the *Flesh*; which Wounds, though not so dreadful as those last mention'd, yet if the *nervous* or *tendinous* Parts happen to be laid bare, or thereby injur'd, as by stretching or tearing of the same asunder, very grievous, and often dangerous Symptoms do ensue.

In the Cure whereof, when the Skin alone, or outward Teguments have suffer'd, the same being return'd to its Place, must be sticht up, as was directed for the incis'd Wound, in like manner with which, where the Habit of Body is good, and the Blood *homogeneous*, or free from any morbid Taint, many of them will unite, and heal by the *first Intention*, some proper *Agglutina-tive* being applied thereto, assisted by as suitable a Bandage.

But when by reason of the Pain and Fluxion thereby stir'd up, notwithstanding your Endeavours to avert the same by gentle *anodyne Embrocations*, with other repelling or discutient *Topics*, together with Bleeding, and the internal *Regimen*, the Sutures fly; or through Matter gathering underneath, you are under Necessity of dividing them, and making way for the Discharge, it is however still your Duty to promote the Union all you can, by leaving some of them remaining: Or where this cannot be obtain'd by Compress well suited to the hollow Parts, and Bandage to press forth the Matter to the Sides, and repair what is then wanting at the Edges, by the way of *Incarnation*, as in other Wounds requiring Generation of new Flesh.

Again,

Again, if it so falls out that the Flesh itself Tendons
 is also torn, the *Tendons* laid bare, and appearing *lying bare*.
 out of the Wound, these also must carefully be
 replaced with their Coverings, and as much as
 possibly defended from the Injuries of the Air,
 that the Parts to which such *Tendons* appertain,
 if undivided, may not lose their Motion, as they
 would if their whole Substance happens to *slough*
 away, to which nothing renders them more li-
 ble, than the negligent exposing them at the
 Times of Dressing, or dressing them with some
 greasy flabby Application: For which Cause,
 should their outward Fence, by breaking away
 of the Stitches, or whilst the Wound is digesting,
 expose any Part of them, you are no sooner to
 take off your Dressings, but the same Instant to
 have a warm Stupe ready at Hand wrung out of
 Wine, or a Fomentation prepared from a Decoc-
 tion of the *Cephalics*, such as the *Fol. Beton. Salv.*
Rorismar. Majoran. Flor. Anthos ac Lavendul. or
 such like: Three or four of which being applied
 while your Dressings are got ready, you may co-
 ver the tendinous Parts with a soft Pledget dipt
 in the *Mel. Rosar.* with a third or more of the
Unct. Myrr. then filling up the rest of the Wound
 with soft Dofils, moisten'd in the warm *Liniment*,
 and *Bals. Tereb.* hasten the incarning of those so
 useful Parts, dispatching what remains as we have
 before directed.

If when you have done your Endeavours, yet
 in spite of all your Care and Caution, as it some-
 times happens, especially in ill Habits, and ill-
 condition'd Wounds, these tendinous Parts being
 long exposed and steeped in Matter, are hereby
 loosen'd in their *Compages*, the incarning also be-
 ing slack in covering them, some Parts grow soft,
 and, as it were, putrid, and separating from the
 rest,

rest, cast off in *Sloughs*; or the Body of the *Tendon* being alter'd, seems likely to undergo this Misfortune: At such Times, I say, you are to do all you can by your Art; but where you find this Prospect, be sure you secure your own Reputation, if you cannot that of the Use of your Patient's Limb, hereby endanger'd, by timely acquainting him with what is like to be the Result of his Mischance,

Of the *Wounds* of the *Tendons* themselves we shall take farther Notice, when we come to those particularly of the *Joints*.

Wounds made by *poisonous Animals*, or *envenom'd Instruments*, we have taken Notice of in our Tract *de Morbis Cutaneis*, to which we must refer for avoiding Repetitions.

HIST.
lviii.

A poor Fellow pursued by *Bailiffs*, and making his Escape over the Rails in a Neighbour's Yard, as he was hastily letting himself down on the other Side, was catch'd by a *Tenterhook*, entering a little below the *Axilla*, which by the Weight of his Body appending, tore its way not only through the *Skin*, but the *Flesh* of the *Biceps Muscle*, the *Tendon* whereof lay bare in the Wound, and the *Mediana* ruptur'd, whence great *Hæmorrhage* ensued. Passing by at that instant, and enquiring into the Meaning of the Concourse, I was known to one in the Croud, who civilly accosted me, and earnestly begged of me to walk into the House to assist a poor Man bleeding to Death: Upon which they made way for me to enter, where I found a Stranger calling about him for Abundance of Things which were not to be had in the Place; the Man still bleeding on the Ground. I immediately order'd that all such as might not be some how assisting should quit the Room; then taking off his Clothes, and cutting

cutting off the Shirt-Sleeve, with a wet Clout I cleansed away the Blood, in order to take a View of the Wound, which I had the better Opportunity of doing, the Patient falling into a Swoon, and the Flux lessening thereupon; I ordered my Assistant, who acknowledged himself no profess'd Surgeon, to keep a Compress I had for that purpose dipt in *Oxycrate*, close down with his Thumb on the bleeding Vessel, till I had provided such *Apparatus* as the Place would admit, whilst the Roller was getting ready, and a Bason of Water and Vinegar beat up with the Whites of Eggs, also a Plate of Flower; with my *Forceps* I held a common Stitching-Needle in the Fire till it was so temper'd, as to admit of bending, especially at the Point, which being arm'd with Thread, and a little Hook out of my Tweezer-Case laid by in a Plate, setting the poor Man in a Chair opposite to the Light, supported on each Side, I directed the Person who held the Compress to remove his Thumb; when the Patient returning to himself, the Blood again ran forth at the lower Extremity of the torn Vessel, which raising up with my Hook, I passed the Needle underneath, a little below the said Extremity, and made a Ligature thereon, by which the farther Effusion was prevented.

This done, he fell again into a *Deliquium*, but being supported, I took another Needle threaded, and drawn through a Piece of *Diapalma* Plaster instead of Wax, which about an Inch from the Top of the Wound, I passed through the Skin and musculous Flesh on one Side, and having placed the distorted Fibres as well as I could whilst I was entring my Needle through the Side opposite, a strong Convulsion seizing him with great Violence, he threw about his Limbs, so that

that had I not immediately let go my Needle and Thread, which I had just got through, and given way, he had certainly torn the same by that Jerk he gave his Arm: But coming again to his Senses, I proceeded with my Sutures after a little Pause; and giving him the Refreshment of a Glass of Wine procur'd from a Gentleman's House near at Hand; an Inch below the first, I made a second Stitch in like manner, securing the Tie with a double Knot, after having brought the Lips as nigh as possibly I could with Security to the Suture, and so a third, which having dispatch'd, and finding very little Blood, I laid down only several long and thick Pledgets of dry Lint upon the Wound, with soft Pads of Towel wet in the *Oxycrate & Alb. Ovor.* then sprinkled with *Farina*, and securing all with a moderate Bandage, placing the Arm at an oblique Angle, and pinning the same up in a Napkin; yet before I had dress'd up the Wound his *Creditor* came in, having Notice of the sad Accident; and finding him in this miserable Condition, was moved so to Compassion, that he freely forgave him his Debt, and promised him a Release before he went out of the House, seeming truly under great Concern, and, I believe, had been highly provoked to do what he had done.

When I had order'd him a gentle *Pacific* for the Evening, I took my Leave, with this Hint to his Friends, that what I had now performed was the Part of the *Samaritan*, having bound up the Wounds, and secured his Bleeding, but that I expected they would release me of any farther Attendance, especially considering the Distance he lay from me, by getting him into one of our Hospitals, provided for such necessitous *Invalids*. But next Morning to my Surprise, and which,

I think,

I think, truly a Case not often parallel'd, the *Creditor* came to me, and told me, he could not rest that Night for thinking of the poor Man, nor did he believe he should ever have a quiet Day, should he happen to do otherwise than well: Upon which Account, as I had thus charitably begun, he requested I would go on, and take him for my Pay-Master, at the same Time presenting me with five Guineas as my Encouragement, or in Part of Payment; and promising, for my greater Conveniency, so soon as the same was practicable, he would remove him nearer to me: Upon which I did engage to attend him, and do all I could for his Recovery; and accordingly, soon after going to him, I found he had been very restless all the Night, with *Ricquers* intervening, and sometimes rambling in his Talk.

Taking off the Dressings, I found the whole Limb much swell'd, and beginning to inflame, which I embrocated *cum Ol. Rosar. & Unguent. Sambuc.* whilst some *Liniment* was made warm with a little *Balsam. Tereb.* in which, having facced them with the *Liniment per se*, I dipt my Pledgets, and applied them the whole Length of the Wound, so that some of the same might sink in between the Interstices of the *Sutures*: Then covering all with one large one of Tow, spread over with the said *Liniment*, I gently roll'd up the Arm, as the Day before, ordering an emollient Clyster to empty his Bowels and relieve his Head; and giving farther Directions for his Diet, as we have observ'd already for Persons wounded: The Clyster having done its Office, the *Paregoric* was repeated *ex Aq. Flor. Paralyf. ʒij. Syr. de Mecon. ʒvi. Aq. Pæon. C. ʒij.*

The

The Day following, which was the second after that of the Hurt received, I found a great *Gleet* had wetted through all, and taking off the Dressings, perceiv'd the *Tumour* and *Inflammation* still increasing, threatening a *Gangrene*, the Lips turgid, and the Stitches, as it were, upon the Stretch thereby cutting themselves out; so that finding no *Symphisis* like to be effected, I let fall the middle Stitch, and laid in two or three soft Dosils on the Bottom of the now putrid Wound, dipt in the foresaid Mixture, with the Addition of about a sixth Part of the *Ol. Tereb.* and a Pledget as before, embrocating also from the Wrist to the Shoulder, then rolling him up again.

On the third, I found my Patient somewhat better settled in his Head, visiting now in Company with Mr. *Blundel*, who was call'd in to give us a View; yet was he still restless from the Pain and *symptomatic Fever*, suffering likewise by *Spasms*, or convulsive Twitches of the Nerve in the Limb affected, frequently recurring, yet neither *Tumour* nor *Inflammation* altogether so great as the Day before: The Lips still pouted up, but the Dressings came out with some Appearance of Corruption; and the Bottom as well as the Sides of the Wound cover'd over with *Sloughs*. Upon which I sprinkled a little *Præcip. rub.* having first well fomented the Limb with an *Elixiviate Fetus*, got ready for that Purpose; then filling up the Wound, which was now gaping, or wide open, by Reason of the lowermost Stitch cutting its way through, with soft Dosils dipt in the Mixture used the Day before; and snipping some Vesications which were risen on the Sides of the same, I laid over an outside Pledget, and encompass'd the whole Arm with a *theatrical Cataplasma*.

Ol. Lubricorum, applied as hot as he could suffer it, embro-
ating from the Cubit to the Fingers, with the
Ol. Lubricorum made as hot, with gentle Com-
presses on each Side, and suitable Bandage. By
the Loss of this lower Stitch, the *Tendon* of the
Biceps was exposed, which I immediately cover-
ed with a soft Pledget, moistened in the *Terebin-
inate Balsam*, the *Ligature* upon the Vessel ly-
ing fast.

After three or four Days more, we had a lau-
able Matter from the Wound, the *Sloughs* se-
parating at the Edges, and the *Gleet* much les-
ening; so that finding the Part would admit, I
fixed a Couple of Plaister-Compresses on each
Side the whole Length thereof, with soft Bol-
sters of Cloth thereon; and having lightly fill'd
up the Cavity with my Dofils dipt in the Mix-
ture, only lessening the Quantity of the *Ol. Te-
rebintb.* with a double-headed Roller passed, as
we directed in such like Wounds of the Limbs,
we brought the gaping Sides much nearer toge-
ther: And having so narrowly escaped a *Gan-
grene*, as also *Apostemation*, the least we could
have expected under those threatening Symptoms
which attended the first Week, I began to hope
the most difficult Part of our Work was over,
though he was still infested with the Convulsi-
ons; one of which in the Night-time seising
him in his Sleep, haul'd him with so great Vio-
lence, that by the Jerk of his Arm, the *Ligature*,
which was near upon Separation, being thus ha-
sily torn off, the *Hæmorrhage* was again renew-
ed; so that his Nurse presently discovering the
Accident, I was call'd up in haste, forced to
loosen all his Dressings, and whilst she compress'd
the bleeding Wound with a small Bolster as at
first, dipt in Vinegar and Water, held close down
upon

upon the same with her Thumb, I dress'd up the Wound again, and taking all possible Care of the *Tendon*, clap'd on a Button of Lint dipt in the fine Powder of crude *Alum* (carried with some others along with me) upon the new Breach, and held it close myself for some Minutes; which though it created Smart for the present, restrain'd the farther Efflux. Over this I laid a fresh Compress, dipt in the said *Oxycrate cum Alumina* and a moderate strict Bandage for securing all underneath; directing him as he lay, with his Thumb of the other Hand, to keep a gentle Pressure upon the Part whence the Blood had flowed.

In the Even of the same Day I visited again and order'd him another Clyster on the Account of his being costive; also an Emulsion *ex Semine 4. fr. Sem. Papav. alb. in Aq. Hord.* as directed for the *Erysipelas*, only leaving out the *Gum Arabic*, also the compound Piony-Water, and doubling the Quantity of the Poppy-Seeds; with each Draught whereof he took a Scruple of *Saccharum Prunel.* in order to contemperate the Heat of his Blood, and somewhat moderate its Motion, keeping him still low in his Diet, allowing only Gruels or small Broths for his Food, and small Beer, which he was a great Stranger to before for his Drink, with three or four Spoonfuls of a Pearl-Julep, to refresh him after his Dressings or when languid or faint. This Evening he had farthermore his *Anodyne* as at first: I examin'd the outside Bandage, but could not find any Blood had soaked through.

The Day following, finding likewise all things safe, in Regard of the *Hæmorrhage*, I deferred opening the Wound till the next; when coming to remove my Dressings with all imaginable Caution,

tion, first wetting them with a little warm Wine, then gently raising them up, I perceiv'd a Crust induced upon the Vein; to prevent the too hasty digesting of which, I laid on a Pledget of dry Lint, with another dipt in the Balsam over the bare *Tendon*, which appear'd a little soft and spongy, and lost daily of its bright or silver Hue, as if threatning to *slough* away: Then taking out my Dofils from the Wound above, I found the large and profound Sloughs, both on the Edges as well as Bottom, growing still looser, and likely to cast off in few Days; so that although our Progress had been somewhat retarded by this new Effusion, yet was the rest of the Wound in good Condition, the upper Stitch still continuing, but something gaping, through which I let fall some of the warm Balsam, with a Pledget dipt in the same over it: The rest I sprinkled as before with my *Precipitate*, laying down soft Dofils as formerly, with an outside Pledget of the Digestive, and with Compress and Bandage dress'd him up again, placing his Arm upon a thin quilted Pad, instead of a Pillow, for fear of keeping it too warm, in a Posture between a Curve and a strait Line, the Elbow making an obtuse Angle.

I designedly omitted the Use of the Fomentation, both now and several Days after, lest by its Heat, rarifying and attenuating the Blood, the same might again happen to break its Boundaries, and create us farther Difficulties.

But from this Dressing we daily got Ground, the *Eschar* lying fast till the Vessel was incarn'd; the *Sloughs* likewise separating, and the Wound well mundified; the *Precipitate* was now mixt with the *Digestive*, and the *Ol. Terebinth.* left off: The Dofils being armed with the *Linim. Arcei*, were dipt in some of the same dissolved

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with the *Bals. Tereb.* continuing the Compress on each Side, and placing the middle of the two-headed Roller on that opposite to the Wound, bringing one to the right Hand, the other to the left; and so continuing the whole Length, making thus interchangeably several Circumvolutions as streight as was convenient to press forth any Matter and bring the Lips as well as Sides thereof nearer to each other, for expediting the Cure.

When the lower Part of the Wound was thus incarn'd, the Crust cast off, together with the *Tendon* seemingly in a *Slough* of its whole Substance, and the upper Stitch now rotted away, I cicatrised with dry Lint, and my *Cerat. de Lap. Calam.* and having compleated our Work, the Arm, whose Flexion I despair'd of, though long time weak; yet after about six Month's Time, by the Help of lubrifying nervous Embrocations, *ex Unguent. Nervin. Ol. Lumbric. Axung. Hum.* and the like, recover'd so much Strength, that he was capable of following his Occupation, which was that of a Victualler; and could with his lame Arm make a shift, though not so readily as before, to lift up a full Pot of Beer to his Head.

Had a Wound of the same Length and Depth also been made by Incision, there had been no great Doubt of its Union by a *Symphisis*, or the *first Intention*; and this on Account of its longitudinal Situation, by which a much smaller Number of the muscular Fibres undergoes a Solution, than in Wounds either transverse or oblique, being forwarded, as we have already taken Notice, by the two-headed Bandage; but being thus torn and mangled, and great Numbers of them put upon a Stretch and distorted, no wonder by the
Difficulty

Difficulty of replacing them in their former Series or Order, together with the accompanying Pain and Fluxion, we miss'd of the *first*, and were glad to repair the Breach by *Syffarcosis*, or the *second Intention*: Yet considering the vast gaping of the Wound, with its great Length, the *Cures* were justifiable, and their Omission would have been condemn'd, since it was in our Power to have given Liberty, as we did, so soon as we perciev'd a Necessity of so doing.

The Arm was designedly kept upon a *Semi-flexure*, that in case of a stiff Joint by *Abscesses*, or Apostemations arising frequently upon such like Accidents, or Loss of its proper Motions, it might be still more useful than at a full Extension, or a direct Angle.

The last we shall take Notice of among *Wounds Of Puncture* in general, is the *Puncture*, a *Wound* inconsiderable to the Eye, and sometimes imperceptible almost thereto, but otherwise mischievous in its Effects, and often fatal.

Hildanus particularly gives us two remarkable Hist. lix: Histories of this Kind, the one of a *Countryman* losing his *Finger*, the other both his *Leg and Life*, through the *Prick of a Thorn*, passing by a *Hedge-side*: But we have Instances enough nearer Home, of such, as by the *Prick of a Pin or Needle*, but frequently by the *Point of a Lancet* in letting Blood, have undergone the same Fate.

'Tis true, that in a simple *Puncture* on the Skin, or sometimes *Flesh* also of sound Temperaments, *Nature* seldom requires other than her own *Balsam*, to unite or heal the Breach: However, even here I think it not amiss to apply some mild *Digestive*, at least for a few Days, lest otherwise where the *Membranes or Tendons* lie close upon, or adjoining thereunto, the *Parts* happen to inflame,

flame, and the Wound, as they call it, *fester* and prove troublesome: For if the *Puncture* happen near the *Joints*, among the *Nerves* or *Tendons*, and those of the *Fingers* or *Toes* the *Hands* or *Feet* you must by no Means measure the Degree of Danger by the Smallness of the outward Hurt but the Nature of the Part wounded underneath for contrarywise this is often greatest, where the Wound is smallest: Nor have you any better way, where the Symptoms encrease, such as *Pain*, *Tumefaction*, and *Inflammation*, than to enlarge this little Wound for the easier Conveyance of proper Medicines thereto; among which the *Liniment of Arcæus*, so often recommended with a few Drops of the *Balsam of Turpentine* melted down together, will be as serviceable as any.

In the mean time let the Place all round about be embrocated with some *anodyne* Oil or Ointment, as the *Ol. Ros. Lumbricorum*, *Ol. & Unguent. Sambuc.* *Cataplasms* also as were directed in the Beginning of the *Pblegmon*: Let him be let Blood to abate the Fluxion, neither let him think it needless that he observe a proper Discipline in his Diet and Way of Living for some Days, lest by a Contempt thereof, he pay dear for his Temerity and obstinate Refusal to comply with such Directions.

But if the Symptoms from these Accidents still farther encrease, and threaten *Impostumation*, or if a *Gangrene* ensue, you are to proceed as we have formerly given Advice for the like Symptoms attending that *Tumour*.

The following being an Accident of this Kind remarkable for some Circumstances attending, we have therefore adjoin'd it.

A Maid Servant to a Scrivener, then living in *HIST. lx.*
Bartholomew-Lane, by a Mischance, as she was kneeling to scour her Irons, felt something prick her a little above her outward Ankle, and examining the Place, perceiv'd a Speck of Blood, but took no farther Notice, imagining some Pin hanging in her Petticoat had prick'd her, and for two or three Months followed her Business, sometimes limping; but disregarding it, till a Cramp, as she thought, seizing her about the Calf of her Leg, and almost continually twitching the Membrane of the *Muscles*, she was forced to keep up for some Weeks, when a *Tumour* appear'd on the back Part of the Leg, indurated and inflam'd, which gave a little Alarm to the Family; who apprehending it might be a Matter of great Consequence, and seeming to threaten the poor Maid's Limb, she was sent to the *Hospital* to be taken Care of; where a *Suppuration* being promoted, an *Abscess* ensued, which being open'd, and the Matter let out, suspecting nothing farther to be enquir'd after, by the Care of the Surgeon the same was healed up again, and she return'd to her Service; where after six Months more she began to make the same Complaint of a pricking Pain higher up on the same Limb, so that walking, at some times she was forc'd to stop for a Minute or two; and in kneeling wou'd cry out that something prick'd her, till at length, the Pain being very acute, and she being persuaded in herself that she felt somewhat deep under the Flesh, on the inside of the Thigh, a little above the Joint of her Knee, she came to me, who feeling upon the Place, whilst with one Hand underneath, I bore up the *Muscles* tight against the Skin; I plainly perceiv'd also with my Fingers of the other, the Point of some hard Body,

like that of a Pin or Needle: Then calling in my Servant to assist, whilst he thrust up this strange Body as before with his Hand, and I was farther convinc'd that it was so, I took out my Incision-Knife, and cut down upon the same making a Wound of about half an Inch in Length, and of like Depth, and searching with the Top of my Finger, could plainly feel it; but the Blood hindering our Sight, and the Wench through Pain altering the Position of her Thigh I lost it again: Upon which, persuading her to keep her Limb steady, and promising I would not cut her again, I took the Management of the Muscles into my own Hand, and having with a Sponge clear'd away the Blood, as I kneel'd down by her, and forcing the Flesh up as formerly whilst I wip'd out the Blood, I could not only feel it with my Finger thrust down for that End but withdrawing the same, with my naked Eye perceive the Top of it; whereupon, before now let go my Hand underneath, I call'd for my *Forceps* lying by, and taking hold of the Extremity, found the same insufficient to draw it forth by Reason of its slipping off: So that fearing, by altering the Site of the *Muscle*, I should again lose the Sight thereof, I resolv'd to make some farther Attempt; and having a Tweezer-Case in my Pocket, I order'd a Servant to take it out whilst I kept the said Body still within my View Clapping the Tweezer down, and finding it placed right for my Purpose, I pressed down the musculous Flesh on each Side, before I made the Gripe, that I might gain the better Hold when without great Force I drew out a rusty Needle about an Inch in Length, some Part having been broken off; after which I drop'd in the warm *Balsam of Turpentine*, with a Pledget

Liniment, and a Bit of common Plaister, gently rolling up the Limb for Security of the same, and the third Day after found the Wound united, so as to stand in need of no farther Application.

Being got upon this Subject, of the strange ways which Nature sometimes takes to free herself from foreign Bodies, I shall here give you two or three singular Cases, and which, but for the Credit of their Authors, might seem incredible, of Needles swallowed.

Benevenius in his 20th Chap. *de Abditis*, takes Hist. lxi. Notice of a Woman, who inadvertently had let down a Brass one, without any Complaint, which lay in her Body for a Twelvemonth; about which Time she began to cry out of an acute Pain upon the Region of the Stomach, which continuing daily, she consulted many Physicians, remembering nothing of the Accident about the Needle, when tired out with Medicines, she threw all aside, and continued languishing for a Year longer, when suddenly started out the Point of the Needle, having pierced the Stomach and common Teguments; which, saith the Author, I saw, and in few Days after recovered the Patient to her former Health.

An History still more notable, is transmitted by *Alex. Bened. Lib. 2. Ch. 9. Anat.* of a young Girl falling asleep with a Needle in her Mouth, which she us'd for her Hair in dressing of her Head, the Length of four Fingers, unwarily letting the same slip down her Throat; when after ten Months, with exceeding great Pains, it discharged itself by the urinary Passage, having gather'd a stony Concretion round the same, during its stay in the Bladder, of the Compass of a Hen's Egg.

And a third exceeding these, communicated by *Langius*, concerning a young Woman dressing herself at the Glass, with several Needles in her Mouth, when her Sweet-heart coming softly behind her, and striking her jestingly on the Shoulder, so affrighted her, that in crying out, she swallowed the Needles at the same Time, and without Injury to any Parts in their Passage, voided them all by Urine two Days after.

Yet so different has been her Method at other Times, that the more simple Bodies have been almost destructive to the Frame; of which Nature *Ambr. Parey* has a memorable Passage of a young Student, who carelessly putting a Blade of Grass into his Mouth, and swallowing it as heedlessly, it afterward, whole as it was let down, made its way through the intercostal Muscles, not without great Danger of the young Gentleman's Life.

Mr. Greenhill takes Notice of a Servant to Sir *Anthony Keck*, who had complained of a Pain and Hardness of his right Side for more than twelve Years, which observing to approach daily nearer the Skin, he made Incision, and not without some Force, pluck'd out a rusty Needle, which was supposed to have been formerly swallowed. See the *Philosophical Transactions abridg'd*, Vol. 3. p. 93.

Rondeletius takes Notice of a Needle long buried in the Muscles of the Arm, at length forming an *Abscess*, it was extracted all over rusty; of others lying long Time in the Body. See also *Hildanus Cent. 6. Obs. 36*.

This Case foregoing of my own, I have inserted on the like Account, viz. that a Needle entering the Flesh below the Calf of the Leg on the outside, should after a Year's Time, when
all

Remembrance thereof was forgotten, be taken out on the Inside of the Thigh; which must needs be effected (for there was no *Witchcraft* in the Case) by the Working or Motion of the Muscles favouring its Ascent, and Winding therewith in its Passage, till it was turned some-
how, and stuck fast to the Place it was cut from.

In passing the *Gastrocnemius*, it might probably cross itself, and at one or other of its Ends prick or vellicate the Membrane, by which a Flux of Humour was stirred up, and an *Abscess* raised; after the Discharge of the Matter where-
of, if not before the Suppuration, it had again changed its Position, and worked itself higher up by the *oscillatory* Motion of the Fibres, so as to escape the Sight upon opening of the *Abscess*, neither *Surgeon* nor *Patient* suspecting any thing of the same.

Monsieur *Patine* in his Letter to Mr. *Falkonet*, makes mention of an odd sort of Puncture practis'd in his Time, with a vile Intent of procuring *Abortion*; for which, he says, he knew a Midwife who had her publick Punishment suspended, though it was proved she had kill'd a *Fetus*, by perforating the Womb of a certain Woman, by a Needle contrived for that Purpose, but with such unhappy Success, that the Mother being seiz'd with Convulsions, expir'd in a great deal of Misery. This wicked Woman, in her Confession before the Judge, owned notwithstanding, that by the same Method she had successfully procured Miscarriage in many Women.

There is another Sort of *Puncture* still farther mischievous, I mean that made with the Point of a Rapier or Sword, thrust through the
Limbs

Limbs or Trunk of the Body, where, besides the foreſaid Accidents, mortal *Hæmorrhages* and *Convulſions* carry off the Patient in an Inſtant. But of theſe in our next *Section*, when we come to ſpeak of Wounds inflicted on ſome particular Parts of the Body; and having ſufficient Room in Proportion to the Length of the preceding one, for the Addition of a few Words more, I think the ſame cannot be taken up more ſuitably, than in earneſtly perſuading the young Gentlemen of the Profeſſion to the Study of *Anatomy*, by which, not only the *Nature*, but the *Cure* alſo of *Wounds* will be the better underſtood.

An Exhortation to the Study of Anatomy.

That this Knowledge of the Fabric or Structure of human Bodies, is abſolutely neceſſary to every one profeſſing the *Art of Surgery*, will need no Arguments, if we conſider how often they meet with a Neceſſity of dilating or opening the Parts in *Absceſſes*, and *ſinuouſ or fiſtulous Ulcers*, where we cannot obtain our Ends by *Compreſſion* and *Deligation*: To look no farther than the Management even of a *Lancet*, what fatal Accidents have attended the opening of a Vein in the Arm; for which every ignorant Barber, now a Days, thinks himſelf well qualified? Such I mean, as *Punctures* of the *Tendon*, from whence *Pain*, *Convulſion*, *Apoſtemation*, at ſome Times *Gangrene* or *Mortification*, at the beſt contracted Members, with ſtiff and almoſt uſeleſs Joints.

As pernicious, if not more ſo, is the Conſequence of a prick'd Artery, ſuch as great *Hæmorrhage*, or prodigious Loſs of Blood, with the Trouble that attends our beſt Endeavours to reſtrain it.

But

But farther, what wretched Ignorance must he betray, who knows not the true Situation and Office of the Parts of human Bodies, when his Judgment shall be asked of the By-standers, concerning Wounds that penetrate either *Breast* or *Belly*? When for want of this Knowledge, and that of the supervening Symptoms, he does at random pronounce the *mortal* Wounds *recoverable*; and those of the less noble Parts, or where there is less Danger, to be *mortal*.

How unstable is his Hand, and how perplex'd his Mind, who is going about with his Knife or Scissars some manual Operation? And how deplorable in the mean Time must be the Case of the poor Patient?

There are few of you Gentlemen have been unacquainted with the calamitous Effects of this Ignorance.

I remember to have heard of two Persons, HIST.
lxii. one of them I knew, who bled to Death, upon dividing the Artery together with the Tendon of the *Mastoides*, in the cutting for a *wry Neck*; the like Misfortune befel a third some little Time after, by the Mistake of an *Aneurism* for one of the *humoural Tumours*, under the Hands of the same villainous *Empiric*, who was then forced to quit his Quarters, though, I fear, not his wicked Practice.

How many poor Cripples are daily presented to us, whose mangled, crooked, stiff, or contracted Limbs, are owing to ill Surgery!

Let me then conjure the young Fraternity of this worshipful Corporation, diligently to apply themselves to this so noble, so entertaining, and so useful a Study; to take all Opportunities of frequenting both *private* as well as *publick* Dissections, by which it must be owned, they will
receive

receive a more useful and satisfactory Instruction, than by turning over large Volumes published upon this Subject, though these are by no Means to be neglected at their leisure Hours.

Consider, Gentlemen, the Applause that will attend, and the Esteem or Credit it will justly gain you, when, by this Acquaintance, you are able, even at first Sight, to tell your Patient's Friends the Nature of his Wound, whose Danger lies out of Sight, and whether he is likely to survive or sink under the same.

No less Advantage will hereby redound, that in performing some inevitable Operation, you foresee what Consequence must ensue, of which you can before apprize them: For Instance, Loss of *Motion* by dividing such a *Tendon*, *Sensation* from such a *Nerve*, *Hæmorrhage* or Bleeding from such an *Artery*, lying in the way; by which Kind of *Prognostic*, I say, you may secure yourself from Reflection, and are armed likewise for what shall happen.

By thus pressing upon you a thorough Acquaintance with the Subject of your Work; I mean chiefly such a Knowledge as gives you a right *Idea* of the Course of the *Blood-Vessels*, whether *Arteries* or *Veins*, especially their larger Trunks and *Divarications*, before they commence Capillaries and escape the Sight: The Situation and Office of each *Muscle*, the Course of its *Fibres*, together with its *Origin* and *Termination*: The several *Pairs of Nerves*, with their most remarkable *Plexus*, whether arising within or without the *Cranium*, as from the *Vertebræ Colli*, *Thoracis*, ac *Lumborum*, are also fit to be known.

By the first, you will learn to secure yourself in manual Operations against a *Hæmorrhage*; the second will direct your Knife to avoid, as much as possible,

possible, a transverse Incision of the *muscular Fibres*, by which the Motion or Action of the same would be impaired, if not destroyed; and the last will instruct you in the Consent of Parts, to account for a *Paralysis*, or the Loss of *Motion* and *Sensation*, to distinguish between *protopathic* and *sympathic* Affects, or the Diseases arising *primarily* from the Part itself, or *secondarily*, by Consent from some other however distant, yet communicating therewith by Means of the said *Nerves*. As for Example, when by a Blow upon the Neck, the Arm or Hand happens to lose either *Sensation*, *Motion*, or both, you will understand with *Galen*, that your Remedies are to be applied to the *Vertebræ* of the Neck: If the like Accident befall the Loins, and thence a Palsy seize the Leg, the same Means are to be applied to the *Vertebræ Lumborum*, and that because the *Nerves*, which convey both *sensitive* as well as *locomotive Energy* or Power, taking hence their Origin, are here compressed.

A farther Knowledge than this, I must confess, I do not think so absolutely necessary, or that your whole Time is to be taken up in enterating dead Bodies, in poring through a *Microscope* to discover what perhaps is not, or if perceptible, yet of little Service to the practical Surgeon. The tracing every minute Fibre, or capillary evanescent Vessel, whether *sanguineous* or *lymphatic*, the prying into the intime *Compages* of the several *Fluids*, and the Nature of *Secretion*: These, I say, with other Niceties, you may leave to the *Physician*, or rather to the professed *Anatomist*, whose Labours herein are exceeding laudable, and from whence the Profession of *Physic*, within this last Century, has been wonderfully improv'd.

In

In a Word, the *Myotomy* or muscular Dissection, the *Angiotomy* or that of the Vessels, and as much of the *Neurotomy* as will discover by what Means the several Limbs are depriv'd of their Sense and Motion, without concerning ourselves about those affected in the *Animi Pathemata*, or the several Passions: These, I say, with the *Structure*, *Site*, and *Office* of the *Glands*, their Division into *Conglomerate* and *Conglomerate*, as we have observed them in discoursing of the *Strumæ*, are necessary for you to understand; and surely, if the best Masters of those liberal Arts, *Painting* and *Statuary*, have thought themselves concern'd to take the most exact Survey, not only of the Out-lines, that with more Exactness they may copy after *Nature*, and rightly display her *Symmetry* or due Proportion, but practise also *muscular dissection*, that thereby they may enable themselves to give still the better Grace to their Work, in regularly setting forth the *Risings* and *Fallings* of these Parts, in their several Positions or Postures of the Body: Nay, the *Dancing-Masters* of late have set up their *anatomical Lectures*, for instructing their *Pupils* to hop about in *Mood* and *Figure*.

Now, if these Gentlemen are so careful and inquisitive, where the Mistake is of little Moment, and an Error of the *Pencil*, of the *Chissel*, or a *false Step* perhaps never discover'd, unless by some few Masters of the Arts, at the worst no Harm ensues; what a Shame is it for us to be less diligent, rightly to inform ourselves in this Knowledge of Man's Body, where a Mistake is of the highest Importance, and where the *Knife* or *Scissars* erring no more than a Straw's, if not a Hair's Breadth, one of our Fellow Creatures may be undone, ruin'd in his Limb, if not depriv'd

ect. IV. *Of Wounds in general.*

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priv'd of Life, which may happen to be forfeit-
ed to an Ignorance in the *Anatomical* Dissec-
tion?

But surely, I hope, there are few of you, Gen-
tlemen, who are, or have been well educated,
that can want this Argument to be pressed far-
ther; and therefore I shall here conclude this
present *Section*.



SECT.



S E C T. V.



*Of WOUNDS of some particular Parts
and first of those of the HEAD.*

*Wounds of
the Head,
with their
Prognostic
and Cure.*



Our last was employed in the Description of *Wounds in general*, the *Differences of them*, and their diverse *Management*, the *prime and chief Intentions in their Curation*, with the *Means proper to satisfy the same*; in this we shall observe those of certain Parts of the Body, beginning with the *Head and Face*.

Wounds of the *Head*, meaning those of the *hairy Scalp*, are either simple or compounded by the former, I understand a Solution of Continuity by a slight Cut of some sharp Instrument which in a manner admits of healing by the *first Intention*, if in a well disposed Habit, or the worst, after being *digested*, is easy to incise and cicatrise; by the latter, I mean such as are accompanied with *Contusion*, *Laceration* of the same, or of the *Pericranium*, with *Fissure* or

Fracture

Fracture of the *Cranium* itself underneath. They are both indeed subject to great Flux of Blood ; and herein the simple Wound may be said to be *compounded*, for as much as that the said Flux not only at some Times creates Difficulty to restrain, but the Wound itself, which otherwise had probably united, is now by the cramming in of *Dofils*, or perhaps *Escharotics*, under Necessity of being treated as one that is *compounded*, viz. by *Digestion*, *Deterfion*, &c.

In respect to the *Prognostic*, the *simple Incision* of the *Scalp*, without *Hæmorrhage* or other Accident, is of little Concern or Moment ; but no *contus'd Wound* is to be made light of, since many of these, however call'd only *broken Pates*, have cost the heedless Patients their Lives, even many Days, Weeks, or Months, after healing of their Wounds, when no Danger from the same was apprehended ; and this through some concealed *Fissure* or *Fracture* of the *Skull*, or Extravasation of Blood underneath upon the Membranes.

In the Cure of the *simple incis'd Wound*, if the same happens to be more than an Inch in Length, a *Suture* may be necessary to bring the Lips nearer together ; after which drop in a little warm *Liniment* of *Arcæus*, and apply over a Pledget faced therewith, which, in these Wounds, I think preferable to most others, either *natural* or *artificial* Balsams : Even where the *Pericranium* is laid bare, or also divided, there needs no other Application ; unless by wounding that sensible Membrane, great Pain and Fluxion should arise, when it may be found expedient, for the preventing farther Mischiefe, not only to divide the *Stitch*, but to lay down a soft *Dofil* dipt however in the said *Balsam* or *Liniment*, upon the bottom of the

Wound, proceeding as in those of this Part more complicate, *viz.* with *Contusion*, in which, shaving the Hair round about, if not that of the whole Head, you must first carefully examine, whether all be safe as to the *Skull* itself, which you may press on round about with your Fingers, and diligently note your Patient's Complaint or Winching upon that Pressure. When by the Absence of such, together with those of the usual Symptoms hereafter to be set down, you have Reason to apprehend there is no Damage done either to the *Brain* itself, or its bony Coverlet, you may fill up the Cavity of the Wound, with Dossils moistned in the melted *Liniment* before-mention'd, unless the Flux of Blood calls first of all for your *Restringents* or dry Dressings; the Strength of which, remember still to proportion to that of the *Hæmorrhage*, whether *venal* or *arterial*, from a larger or smaller Vessel, as we directed in our Discourse of *Wounds* in general: Then embrocating the adjoining Parts *cum Ol. Rosar.* lay on a Defensative of *Diapalma Bolus verus*, &c. over which your Compress and Bandage, the Circumvolutions whereof are to be so order'd, as to bear first, although gently, on the outside of the Wound, whereby to express the coagulated Blood, and after *Digestion*, the Matter also, that otherwise lodging, it may not excite any fresh Trouble or Disturbance, which we observed in our last *Section*.

And having thus dress'd up the Wound, unless much Blood was lost thereby, you are to open a Vein, and take away such Quantity from either Arm, as the Patient's *Age*, *Strength*, *Habit*, and *Way of Living* will allow; by which you may keep under the *symptomatic Fever*, and

abate, if not prevent the Fluxion; and this you must observe to do in all contused Wounds of the Head, however trivial they may seem, or unworthy of Regard, keeping your Patient likewise to a spare Diet, forbidding *Wine, strong Drink and Flesh*, at least for a few Days; when having digested the *Sloughs*, if there were any, or being cast off, where you apprehend the *Perricranium* like to be uncovered, or the *Cranium* also to lie bare, it will be necessary you provide for the Security of both, by immediately covering them with dry Lint, to defend them from the sharp or *nitrous* Particles of the Air; and whilst your Dressings are providing, you may apply a double Flannel or Stupe, expressed hot and hard out of Wine, either white or red, or from a Decoction of the *cephalic* Plants, as was observed for the Wounds where the tendinous Parts were exposed in the last *Section*; by which you will not only discuss the Humours, and forward the *Digestion* by assisting the native Heat; but comfort also the Parts underneath, till being incarn'd, the Membrane is hereby secur'd from *sloughing* off, and the *Skull* from *exfoliating*:

It being certainly a mistaken or a wrong Notion, and wide of Truth, that wherever a Bone is bare, and especially the *Cranium*, there is a Necessity of *Desquamation*, before the Wound can be brought to a sound healing; an Hypothesis advanced certainly to countenance either a slovenly or an ignorant Practitioner: Nor can I think truly, but that a third, if not one half, of those Hurts of the *Scalp* in common, which have thrown off a *Scale* from the *Cranium*, have been owing either to the want of due Care at the Times of dressing, exposing the Bone and its Membrane to the Influence of the Air (that

A bare Bone not always to be exfoliated.

known Enemy to these Parts) or to some unctuous Application, that has tainted the same; and this I have remark'd by way of Caution.

Having secured the bottom of your Wound and got the same cover'd with good Flesh, you are in like manner to hasten *Incarnation* thereof and to induce a *Cicatrix* thereon for finishing the Cure; the *Liniment* aforesaid answering in these Wounds the Ends as well of a *Digestive*, as *Sarcotic* also: however a little *Ol. Hyperici* may be added in dry Bodies, and the fine Powders of *Myrrh*, *Aloes*, or *Sarcocol.* for those abounding with greater Humidity: In the former you may cicatrise with my *Cerat. de Lap. Calam.* in the latter nothing better than dry Lint.

But if it shall so happen, notwithstanding your utmost Diligence and Care, that the *Pericranium* whilst the Wound is digesting, grows putrid and sloughs off, leaving the *Cranium* naked and discoloured, so that a *Scale* of its outward *Lamina* seems unavoidable; or that the same, as frequently occurs, is likely, though perhaps inferribly, to moulder away: For the greater Dispatch and to prevent the farther spreading of the Taint you must dress up (being first digested) with dry Lint, at least the *Cranium*, keeping the Wound so distended with your Dossils, as that the whole of the corrupt Part, which is like to be cast off, may be kept within your View; for which end, if any *fungous* or spongy Flesh (usual at such Times) chanceth to arise, the same must be remov'd or kept under, the dry Lint proving insufficient, with some gentle *Catheretic* such as the *Præcipit. rub.* with which some mix the *Alumen ustum*, and then call it the *angel Powder*; but for the horrid Pain it creates, might, I think, be termed *diabolic*; the Ca

Alum is milder and serviceable also; nay, the *Alum* or *Vitriol* by themselves are not so painful, as the *Pulvis Angelicus* aforesaid. Some use the *Troch. de Minio* for this Purpose, but which, by Reason of the *Sublimat. corros.* in the Composition, and the ill Effects thereof, sometimes upon the Nerves, I would have you shy of.

For greater Expedition in hastening of the *Medicines Exfoliation*, which remember always, the most ^{to hasten} powerful Desiccatives do promote above others, ^{Exfolia-} it is customary to express the Pledgets of Lint ^{tion.} out of a strong *Tincture* of *Myrrh* and *Aloes* made in Spirit of Wine: Others use a *Tincture* of *Euphorbium*; others again sprinkle the fine Powders of the *Rad. Aristolochiæ, Diſtamni, Irid. Florent.* also those of *Myrrh, Aloes,* and *Euphorbium* by themselves; of which we shall take farther Notice, when we come to speak of *carious Ulcers*. Others, lastly, for greater Expedition, with an Instrument contrived for that purpose, rasp off the external Superfice and then dress it up dry, or with the Powders of *Myrrh* and *Aloes* strewed over the same; by which, when they have gone deep enough, little Grains of Flesh will soon after shoot up, that furnish a Basis for your incarning; so that the Cavity being filled with sound Flesh, the Superfice must be dried into a *Cicatrix*, as we have directed before: And during the Time of using these drying Applications to the Bottom, unless the *fungous* Flesh forbids, you may dress the Lips with your Digestive, at leastwise lay on an external Pledget lightly armed with the same: And thus far of the *simple* and *contused* Wounds of the *hairy Scalp*, either with or without the *Cranium*, lying bare, or happening to be uncover'd.

In *lacerated* Wounds of this Part, which are common from Falls of a House, out of Windows against the Pent-house, or down the Stairs; having well cleansed the torn *Scalp*, with a Sponge dipt in a little Wine, warm Milk, or what is nigh at Hand, and return'd it to its proper Situation, clear also the Hair away all round, as must be observed in all others of this Part, for your better Inspection, and the Security of your Dressings; but in this particular it will suffice to clip the Hair close, if there be any on the Part that is torn, whilst the rest of the Head is shaven at least round about the Hurt.

This done, by several Stitches taken at due Distance, you are to conjoin the sever'd *Scalp* each Part as near as possibly corresponding with its opposite, or the Place it was torn from: where by, if you find you cannot strictly repair the whole Breach by the way of *Symphisis* or Agglutination, you may however shorten your Work and that more slightly, than if rashly or ignorantly you cut off the Flap, as Mr. *Wiseman* observes was done by a Barber in *Smithfield*, who hung the same up in his Shop as a Curiosity.

The *Linimentum Arcae*, with a little *Balsam Terebinth.* being dissolved in a Spoon or Sawcer with an armed Probe or Feather, may be let into the Wound round about betwixt the Interstices of your *Suture*, over which a proportionate Pledge, faced with the said Liniment, and a common Plaister to secure the same: And here it is scarcely credible, what Assistance your *Plaister Compress*, well adapted with *suitable Bandage*, will lend to this Work.

But should it so fall out, the Wound having been receiv'd long before the Surgeon comes, or that the torn *Scalp* hangs only by some little
Portion

Portion to the rest, and seems entirely perished, and incapable of any manner of Re-union with the whole, Necessity now requiring, the same must be cut off, and the Wound after treated, as in *contus'd Wounds*, where there is great Loss of Substance, is usually requir'd: which in these Cases particularly will be found both tedious and troublesome, as also difficultly skinn'd over, not to mention the Consequence, an inevitable and irretrievable Baldness afterwards; wherefore if there be any Prospect of uniting, the former is most eligible, and should at least be attempted; since admitting the Stitches break through, you may perhaps still secure some Part at least of the Breach, and have the less to incarn; or should the whole mortify, you are but where you was, and may now remove the Part or Whole, as you see Occasion.

Observe farther, that in all these Wounds you are not only to dress your Patient by the Fire-side, or if in Bed, to have a Pan or Chafing-dish of lighted Coals in the Winter-Season placed within the Curtains, to correct the cold Intemperature of the Air, more particularly where the *Cranium* and its Cover lie exposed to the same, but to have ready some warm or spirituous Fomentation, as before we have directed; for as *Hippocrates* has rightly observed, *Frigidum inimicum Ossibus, Dentibus, Nervis, Cerebro, &c. Calidum vero utile.*

Again, you must remember, as we have also already advised, when we treated of *Gangrena*, that you proportion both the Heat and Strength of your Remedies to the Sense of the Part, more blunt or acute: The *Tinctura Myrrhæ*, and the *Ol. Terebinth.* being under the former Circumstances,

ces, added to the *Liniment* and *Balsam Tereb.* in the latter omitted or left out.

Of *Wounds* complicate with *Fracture* of the *Cranium*, we shall take Notice when we come to discourse of particular Fractures.

Hrs. lxiii. A Butcher keeping *Leadenball-Market*, but dwelling near *Shoreditch-Church*, being in his Cups, and running hastily along in a stooping Posture, under a Jetty at the Stones-end (which in some Places lies so low, that without such Posture, a Person even of mean Stature cannot pass) believing himself got out of Danger, and in his full Career raising himself up, the exceeding sharp Edge of a semicircular Joice, supporting the projecting old Edifice, took him on the *Vertex*, and dividing the *Calvarium*, forced the same back towards the *Occiput*, leaving the *Pericranium* naked for a great Space.

Being stunn'd by the Accident, together with the Concussion attending, he was taken up as dead, and carried into the next House, where I found him with a Barber they had called in, who was just enter'd before me, but was so far from lending any Assistance, that, upon Sight of the *Cranium*, as he thought it, he ran away in a Fright. I then called for a little Wine, but there being none to be had, they brought in some Brandy, which having diluted, I began to wash and cleanse the Hair about the Wound from the Blood coagulated near the same, when I perceived a small Artery spurting out *per Saltus*. Over this, laying a Button of Lint dipt in the *Calcant.* and held close by one in the Croud, of more Courage than the rest, whilst the Roller was getting ready with my other Dressings, I had him placed in a Chair, not yet come to himself, yet staring with his Eyes wide open as in a Maze, or

like

like one bewildred in Imagination: I then sent away for the Barber to shave the Head, but being already terrified, he would not come to us, so that I clipt off that which lay most in the way; and having better cleansed the same, took farther View of my Work, and perceived the Scalp lacerated or divided just over the *Sutura Coronalis*; when with one Hand forward upon the Crown of the Head, with my other behind, not without some Force, I brought back the retracted and wrinkled Scalp to its Place having before strictly enquir'd whether there was any *Fissure, Fracture, or Depression*) or to the sound Edge whence the *Hæmorrhage* proceeded, and where the Compression was still continued; then with four Stitches at equal Distance, I endeavour'd to conjoin the Lips in order to their agglutinating; when dressing up the rest of the Wound with the warm *Liniment* and *Balsam. Terebinth.* the Person who assisted, still keeping his Finger on the Artery, upon removing which, I applied a fresh one dipt in the same Restrictive, with a Bolster in *Oxycrate*, and the *Alb. Ovorum*, sprinkled thick with *Farina*, and a two headed Roller, with which I made as many alternate Revolutions as were necessary to secure the Dressings, which taking off again the next Day, whilst those on the other Parts were raising, I took care to secure the Button-Compress upon the Artery, and embrocating the Scalp all round, which was much tumefied, *um Ol. Rosar. & Lumbric. ana p. æ.* I dress'd up again as before, only leaving off the Astringents, and applying an external Pledget of the Liniment over the whole Wound.

In regard of the Fever and Head-ach, notwithstanding his Loss of Blood by the same finding his Pulse strong, I took away ten Ounces from his Arm, applied a *Vesicatory* to the Neck and order'd that Afternoon an emollient Clyster to be injected; by the Help of which Revulsion, and Derivation of the Humours other way the Symptoms remitted, and the Tumour on the Scalp subsided; the Dosis or Button digesting also from the Mouth of the Vessel, there appeared no farther Effusion: However, this Part having been distended by the said Dosis, and fretted by the Salts of the *Vitriol*, the *Pericranium* was foul'd thereby, seeming likely to slough off, and leave the *Cranium* bare; which, notwithstanding all the Care I took, beset the same before I could incarn; the rest of the Wound digesting, tho' perfect *Symphisis* was not effected (there being too great Contusion, and the Stitches, though not entirely cutting themselves out, only giving way yet the Scalp uniting at the Bottom, and the Bandage so manag'd as to press forth any Matter by the help of Compress) the Prospect was still hopeful.

I now laid down soft Dosis dipt in the warm *Liniment* between the starting Stitches, in order to fill up with Flesh, which was after some Time accomplish'd; whilst at the other Extreme, the *Cranium* being divested of its Cover lay naked; so that as soon as I had secur'd the Flux, I not only took Care to defend the Wound from the cold Air in the Time of Dressing, but instantly covering the bare Bone with Lint, to apply a Stupe wrung out of hot Claret, dressing up this Part dry, only a Pledget of the Digestive as over the other Parts of the Wound, externally.

When

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When the rest of the Work was completed, it was still several Weeks before we could get a found or firm Flesh to arise at the Bottom; yet at last the Ulcer gradually contracting without any Discharge (or which was somewhat remarkable) sensible *Desquamation*, though it lay bare the Compass of a Six-pence, heal'd up of itself; the *Cicatrix* in this Place, as in all others, where there has been a bare Bone adhering close, neither capable of slipping about as in other Parts of the *Scalp* is natural.

In this Wound there being much Matter lodged underneath, I was less concern'd at the Stitches parting, and making Way for discharging thereof: And truly I was once apprehensive, I must either have cut through the same, or laid on a bit of *Caustic* on the hind Part to have given Vent thereunto, which for several Days after the Accident fluctuated round about; and upon Dressing, with my Hand behind upwards to the *Vertex*, discharged in large Quantity between the *Sutures*: But by well fitting my *Plaster-Compress* to the Cavity, and bearing proportionably with my *Bandage*, so order'd as to compress first from the hind Part, the Sinuosity was at last united.

Had not the *Suture* lain in the way, I would have rugin'd the outside Plate to have forward-ed my Incarnation; but by Means of the dry Dressings, securing the Bone from the Air, and all other Defilement, the Cure in this manner (even beyond my own Expectation) was brought about.

A Case of some Affinity with the foregoing, HIS. lxiv. is deliver'd by *Parey* in his 9th Book and 15th Chapter, of a Soldier, who digging a Mine, and the Ground falling in upon him, had the *Scalp* torn

torn from the back Part of his Head to the Forehead, hanging over his Face, the *Pericranium* lying bare all the Compass thereof. Having cleansed the torn Parts with warm Wine, the whole Wound was smear'd over with a Composition of *Terebinth. Venet. cum pauca quantitate Aq. Vitæ in qua Sang. Drac. Mastich. & Aloes soluta fuerit*. This done, the Scalp was returned to its Place, and there retain'd by a sufficient Number of Sutures; the whole Head, after the Wound was dress'd up, being cover'd with the following Cataplasim.

R. Farinæ Hordei & Fabar. ana ℥vj. Ol. Rosar. ℥iii. Acet. Ros. q. s. ut reducatur ad formam Pulvis, by which he was cured in a short Time.

Wounds of the temporal Muscle.

Between the hairy Scalp and the Face, upon each Side on the upper Part, lies the *Temple*, remarkable for the Accidents and ill Symptoms commonly attending the Wounds thereof.

I shall not take upon me to decide the Controversy, whether or no the *Pericranium* forfaking the Skull in this particular Place, is expanded over the *Crotaphites*, or *temporal Muscle*; though I rather incline to their Opinion, who believe that Part which is here taken for the same, to be no other than the *Aponeuroses* of the *Masculi Frontalis & Occipitalis*, which here uniting, make a sort of tendinous *Fascia*, or Cover for this Muscle. However, be this as it will, I cannot see more Danger from wounding the *Pericranium* here, than in other Parts of the Head, where it is frequently cut and ras'd, and always remov'd to make way for the *Trepan*, when that Operation is requir'd.

Inflam-

Inflammations will indeed arise upon any Wounds of the *nervous* and *membranous* Parts in general. I have known very severe Accidents have ensued the Puncture of a Lancet in opening even the *cephalic* Vein of the Arm, where it was evident no other Part could be hurt, unless the common membranous *Fascia* of the Muscle to excite them: So that I must needs think, that which more troubles the Artist in these Wounds, is that Branch of the *carotid* Artery, here called *Temporalis*, very liable to be open'd in the Wounds of the same Part: But why this should appear so dreadful, I cannot see, because its Situation, as being capable of good Compression against a Bone, and strict Bandage thereon, renders the Difficulty much less than in the same Vessels divided in other Parts; Besides the Operation of *Arteriotomy*, more practised abroad than among us (which I have successfully used in a stubborn *Hæmicrane*, by opening this Artery, after all other Means tried ineffectually, and have known perform'd by others on the like Occasion) abates much of the Apprehension of the great Danger hereby.

This Muscle, whose Office it is to lift up the lower Jaw, has farthermore (according to some) its Tendon extended through its Body or fleshy Substance; but whether so or not, in the overthwart or cross Section of its carnous Fibres throughout, its said Function being hindered, and the *antagonist* Muscle, the *Digrastic* or *Biventer*, call'd otherwise *Deprimens*, over-acting, a Resolution happening on the one Side, a Convulsion may arise on the other, at leastwise for some Time, till the Fibres re-uniting, the Muscle, although imperfectly, recovers Strength.

Yet

Yet none of these are to hinder the Use of the Knife, when absolute Necessity calls for it, as to raise a depress'd *Cranium* underneath, or to make Way to come at either *Fissure* or *Fracture* thereof.

HIST. LXV. I once made, upon such an Occasion, a triangular Incision upon the Body of this Muscle, in the Presence of Mr. *Sergeant Bernard*, and some others, without other Inconvenience than the arterial Flux, which was restrain'd with Dofils dipt in the *Aq. Stiptica*, Compress, and a good circular Bandage assisting.

I have said this by no Means to encourage a rash or bold Use of the Knife upon these Parts, which, it is certain, are attended with worse Symptoms than those of other Parts of the *Calvarium*; but to prove, that in urgent Cases, where there is no coming at a *Fissure* or *Fracture* without it, the same is justifiable, and has often been successfully enterpris'd: Only in operating, it behoves the Artist to avoid, if he can, the *Artery* (which he may be directed to by its Pulse) and a transverse Incision of the Fibres; making the same, so far as he can, according to their Course, *Longitudinal*, or with a *Curve*, as they run from the several Parts of their Origin towards their Termination under the *Os Jugale*.

Some propose this Incision to be made in the Form of the Figure 7; others like that of the Letter V; some in a Semicircular, and others Circular, taking out of the Piece, as I have seen Mr. *Bernard*, in the superior Part of this Muscle, to make Way for the *Trepan*: But this must be left to the Operator, considering by which Method he can best compass his Ends, and run the least Hazard in so doing.

We come now to Wounds of the Face, pro-^{Wounds of}
 erly, which have nothing very material in them, ^{the Face.}
 differing from those of the Head, excepting that
 in these last there needs less Sollicitude about
 the stitching them, but healing oftner by *Sys-*
temicosis, or Generation of new Flesh, so in the
 first, if possible, we are to attempt their *Sym-*
physis, or agglutinating of their Lips; and that
 for preventing the *Cicatrix* or Scar, the smallest
 of which in some Parts hereof, takes off from
 the Grace or Comeliness of the whole Visage,
 and is therefore as much as possible to be pre-
 vented, by stitching up its Wounds, also strength-
 ning the same by the cross adhesive Emplaster, or
 the Stitches cut asunder before the Re-union
 of the Lips, the *dry Stitch* formerly describ'd is
 very convenient, there being little Help from
 Bandage in many parts hereof.

It is customary with some to draw out the
 Threads in three or four Days Time, trusting
 wholly to the dry Stitch for the rest; and this
 they do to prevent the Impression of the Needle
 and Thread being after discernible: But, I think,
 they are herein too hasty, since if the *Symphysis*
 be not complete, which is not always in so short
 Time, and that the Wound happens to gape
 for want of its Hold, the *Cicatrix* or Seam would
 prove a much greater Eye-sore than these Marks,
 that (if the Threads are not left in too long)
 are soon obliterated; nor can there be any limit-
 ed or set Day for their Continuance, since, tho'
 some are well conjoin'd in three or four, where
 there is an *homogene* balsamic Blood to soder them,
 and the Wound simply incised with a sharp In-
 strument; yet may others require a Week or ten
 Days, as in *cacochymic* Habits, and Wounds con-
 fused or torn.

There

There will be no need of multiplying Forms of Applications for this Purpose; that common one so often already mention'd, I mean the *Uniment of Arcæus*, with a little of the *Balsam Turpentine* serving in the Place of most, if not all others; by the help of which, without *Suture*, where the Wound is Lengthways of the Fibre, many of these Wounds have been well united, especially when they can be assisted by a *Bandage*, if not with a cross Strap of the adhesive Plaister.

Wounds of the Eye.

As to particular Parts of the Face, the Wounds about the *Eye-brows*, or some of those of the lower part of the Front, are attended with this Misfortune, that if they happen transverse, and withal so deep as to divide the Fibre of the *Musculus Elevator Palpebræ*, there is Danger of the upper Lid falling down upon the Eye, as I have seen more than once, and rendering it same useless; a necessary Hint to the young Artist, that in dilating here, he avoid as much as possible this transverse Incision.

Wounds of the Eye are partly provided for in our Discourse of the *Ophthalmia*, among the *striking Symptoms*; besides which, having given you some from others, I shall insert a Case or two happening under my own Care for your farther Instruction.

Foreſtus mentions several who were wounded by extraneous Bodies forc'd into the Coats of the Eye, as Splinters of Wood and Stone, to whom having first of all applied *Emollients* or *Lenientes* as *Fotus's* and *Cataplasms*, prepar'd *ex Summis Malvæ, Aneth. Fænugr.* for a Day or two, in order to loosen the said Bodies when they could not be drawn forth instantly, without Hazard or Danger: After which he applies the fine Po

ders of Tutty and Sugar-candy by which he informs his Reader he cur'd a Person who had a Fragment from the Stone-cutters Work impell'd into the Eye. *Si vero (inquit ille) nihil emineat, sed æqualem habeat cum Corpore superficiem; binâ coma accipito, atque utrinque rejectis Nucleis, comprime Oculum, ut quod infixum est, in medio interceptiatur, cumque procumbere videbitur, Volsella extrahito, deinde Sanguinem Turturis aut Columbæ, aut Ovi Albumen instillabis; quæ si parum successerint, ægroto Oculum, Infusionibus ac Linimentis, quæ ad Inflammationes conficiuntur ut supra, post aliquot enim dies suppurata punctiōne, quod infixum est, fluitabit.*

Platerus observes an odd Accident happening in his Time by the Surgeon's Mistake, having sprinkled the fine Powder of Sugar-candy upon the Cornea of a Child's Eye, in order to remove the Speck thereon, intercepting the Light in great Measure, inadvertently at one Time took out of the wrong Box the Powder of Sublimate, whence immediately ensu'd so great Fluxion and Inflammation, as endanger'd the whole Eye; but strait endeavouring to rectify his Error, and take off the Disturbance, the Patient, as it happen'd, was so far from being injur'd, that the Cicatrix being hereby deterged, the Sight was again restor'd, by Removal of the said Speck; an Argument, saith he, that the Globe of the Eye, or its Coats, are able to bear strong Applications; but none, I think, to encourage so dangerous an Experiment.

A Cook's Son in *Bishopsgate-Street*, a Lad a-Hurt, about fifteen or sixteen at the Time of his Hurt, ^{lxvi.}

sewing up his Foot-ball, the same being placed betwixt his Knees, stooping with his Head, in passing a Pack-needle through the Seams of the

Leather, and laying his utmost Strength thereto, the Point suddenly slipt upwards, as he was in this Posture, and pierc'd the *Cornea*, when instantly the *aqueous Humour* was discharged, and the poor Boy affrighted, fell out of his Chair, crying out, that the Needle had entred into his Brain.

Upon this Outcry I was presently sent for, and found the Humours of the Eye already confus'd, some of them lying like a Jelly in the Perforation, and the Lid beginning to shut up.

I immediately let him Blood, ordering a little *Aq. Hordei cum Melle Rosar.* to be got ready, and us'd as a *Collyrium*; in the mean Time an *Oxyrrhodinum* was provided, an ancient Form of Remedy, so nam'd from its Composition of Rose-Leaves and Vinegar; with this Vinegar were beat up the Whites of Eggs, a Couple of them to half a Pint, in which Compresses of linen being dipt and lightly express'd, were alternately, as they grew hard and dry, applied as *Intercipiens* to the Forehead and Temple of the same Side. A Clyster was likewise directed, and being dress'd up, he was put into his Bed, with a gentle *Anodyne ex ʒʒ. Syr. de Mecon. & Aq. Cerasi nigr. ʒj.* with a Blister to his Neck.

The next Day, notwithstanding all Precaution, the *Palpebræ* were much tumified, with a puffy Inversion of the lowermost; so that it was not without Difficulty that I could dilate them in such manner, as to take a View of the Eye underneath. However, I just perceiv'd the *Adnata* cover'd over with a Sugillation of Blood, and out of the Puncture hung a Drop of the *crystalline Humour*: As the Day before, so now, a *Cephalæa*, or obstinate Head-ach had kept him restless all the Night, and between whiles he had been *delirious*.

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In regard to the *Eccchymosis* upon the *Adnata*, I order'd a Couple of Leeches to be set that Afternoon to the Temple on the same Side: In the mean Time, for the speedier Relief of the Brain, and disburthening the Vessels, I took away more Blood from the Arm; his Blister had discharg'd plentifully, yet the Fluxion was very great, so that I directed the following *Cataplasme* to be laid on the outside of the Lids, after they had let in a little of the *Collyrium* first prescrib'd.

℞ Fol. Rosar. rub. Flor. Sambuc. ana Mj. coq. in Lact. Vaccin. q. s. pro Colaturæ ℥ss. cui adde Micæ Panis alb. q. s. ut reducatur leni coctione ad Consistentiam Pulvis, sub finem addendo Vitelli unius Ovi cum tantillo Croci minutim scissi, illinendo Palpebram tumefactam cum Ung. Sambucino priusquam applicetur.

An *Emulsion* also to temperate the febrile Ebullition *ex Sem. Lactucæ ac Papav. alb. ana ʒij. Amygd. d. excort. No vj. cum ℥j. Aq. Hord. contus. addendo Colaturæ Aq. Cinnamom. Hord. ʒj. Sacch. q. s.*

Of this he drank a Draught at Pleasure instead of other Liqueur.

The third Day, notwithstanding all the Evacuation we had made, either by *Derivation*, or *Revulsion*, the Swelling still increased, the lower Lid turning out like a large *Fungus*: Wherefore I now order'd a Fomentation of equal Parts, red Wine and the Smith's Forge-water, in which were infus'd boiling hot, the *Flor. Samb. Chamæmel. Fol. Rosar. rub. Flor. Balaust. Cort. Granat.* of the three first, each a Handful; of the two last, each half an Ounce, to a Pint of each of the Liqueurs; the one half of which being strained,

was reserv'd for the *Fotus*, the other was thickened with Bean Flower for a *Pultis*: having fomented the Swelling with soft Flannels express'd from the hot Liquor, the same was laid on warm, strew'd over thin with *Bole*, and mixing a little of the *Unguent. Sambuc.* first of all therewith, to prevent its hardening and growing dry too soon.

Thus in two or three Days more, the Tumour subsiding, we were able to lift up the Lid, so as to let in a thin *Mucilage ex Sem. Psylli & Cydon. in Aq. Ros. extr. cum dimidia quantitate Mellis Rosar.* and the Fluxion still farther abating, at ten Days End, for the farther hastening away thereof, he was purg'd with the following Lient.

℞ *Rhad. Rhei, Fol. Senæ ana ʒj. Sal. Tart. ʒj. Tamarind. ʒij. Sem. Fœnicul. d. p. 1. Coq. in Aq. F. q. s. ad Colaturæ ʒijß. cui adde Syr. Rosar. Sol. ʒj. & f. Potio, Mane, cum custodia sumenda.*

By the Use of this restraining *Fomentation* and *Cataplasm*, the lax and spongy Eye-Lid daily recover'd its Tone; so that coming more narrowly to inspect the Eye itself, by the sinking thereof, I plainly perceiv'd great Part of the Humours were let out, and the *Tunics* falling down: But as from the first Minute I declar'd the Sight irreparable, so I pretended to nothing more than by encountering the Symptoms, to secure the sound Eye from suffering by Reason of the same; which Point having now gain'd, and render'd the Part fit, I carried him to Mr. Boyce, then living in St. John's Square, near St. John's Lane, a most ingenious Operator in the *Glass Eyes*, who

who so nicely matched both *Iris* and *Pupilla* of the sound Eye, that going abroad, even such of the Neighbours who had not visited him in his Chamber, and looked in when I lifted up the *Palpebra*, could not distinguish the one from the other, but believ'd he had, as it were, by a Miracle, retriev'd his Sight.

A Case of this Nature, but by Contusion, be- H I : T.
fel one *Jay*, a *Bookseller* in the *Poultry*, and Bro- lxvii.
ther to Mr. *Jay* an *Apothecary* in *Fenchurch-street*,
who being in the *Five's-Court* in *Moor-Fields*, a
Ball struck from the Racket hit him upon the
Eye; which presently swelling up the Eye-lids,
before he got home, it was with great Difficul-
ty we could raise the upper, or depress the lower,
to make Inspection on the Inside, which we
found cover'd with grumous Blood; but by pro-
ceeding, as in the Case foregoing, in few Days
the Fluxion abated, and the Grume remov'd; there
appear'd a Rupture of the *Cornea*, some Part of
the *Uvea* projecting through the same, *instar ca-*
pitæ Muscæ, whence by the *Greeks* it is called *μυο-*
κισθηρ, which was long in coming off; after-
wards, so soon as might be done conveniently,
the Blemish was hid by the like Artifice.

But where the Globe of the Eye on one Side
is too much distended with Humour, or lies
high and prominent, as in the *Bupthalmus*, or
Ox-Eye so call'd, or on the other too much de-
pressed by the entire shedding of the Humours,
and sinking in of the *Tunics*, the *Artificial* is little
available in concealing the Blemish; whereas, if
some Part of the Humour still remains with the
Membranes to bear out the same, not only the
Eye-lid shuts and opens, but the Eye itself in
great measure follows the Motion upwards,
downwards, and side-ways, with its Partner; so

that nothing but the Damp, or *Halitus* settling thereon (and this too with the Handkerchief is removed in somewise) takes off from the natural Vivacity, and coming nigh, especially before apprized thereof, lets one into the Deception; but leaving this *prothetic* Part of *Chirurgery*, which teaches to supply what is deficient in Nature, by the Help of Art: There is a Case I find communicated by Dr. *Glandolph* to the *Royal Society*, which for its Singularity I have thought fit to transcribe, and leave you, Gentlemen, to consider of, as Opportunity presents.

HIS. lxxviii. ' In a Blow upon the Eye in the Month of
' *April*, 1709, there was a light Contusion on
' the outside of the Part, with very little Alteration to Appearance; but a Vessel being broke
' within, poured forth a considerable Quantity
' of Blood, the Eye losing its Transparency, and
' almost its Sight, which was so very weak, that
' it could scarce perceive the greatest Light,
' when objected thereunto; the *Cornea* appeared
' all over red, but without any Inflammation, receiving its Colour from the Blood poured in
' upon the *aqueous Humour*. The Patient had
' been let Blood thrice, and the eighth Day I caused the *Cornea* to be opened near the middle;
' my Design being to make a large Orifice, I determin'd not to make it at the Bottom of
' the *Cornea*. The Orifice being made, there
' came forth some Drops of the *aqueous Humour*
' mixt with Blood; the *Cornea* still appeared as
' red as before, and was not so even as we could
' have wish'd. This Circumstance made me resolve to make a second Orifice immediately as
' large as the former, but lower: There ran out
' some Drops of the Humour, and the Eye appear'd
' not so red and convex as before; the Humour
' continu'd

continu'd coming out of the Orifice for some Time. We applied nothing to the Eye, but a Compress or Stupe, dipt in a Mixture of four Ounces of Plantane Water, and two Ounces of a vulnerary Water. The Day after the Operation, the upper Part of the *Cornea* was transparent, the lower Part not so red, and the whole Membrane appear'd to have recover'd its natural Convexity; it seem'd that all the extravasated Blood had quite run out, had the lower Part of the *Cornea* been open'd, and remain'd so for some Time. I observed the Alteration of the Eye for three Days together, in which Time the extravasate Blood seem'd sometimes to spread over the whole Cavity of the *Cornea*. We judg'd that the Motion of the Patient himself had opened a-new some Blood-Vessel, or mixed the said extravasate Blood with the *aqueous Humours*; for we did not perceive all that Time that there was any fresh Effusion of more Blood. The fifth Day after the two first Incisions, I caused a third to be made at the Bottom of the *Cornea*, when there ran out some Drops of the Humour, and continu'd so to do for some Time; and two Days after, the Eye again recover'd its natural Transparency. The *Pupil* was very much dilated, but by little and little contracted itself again, though not to its usual Smallness: The *Iris* all this while kept its Motion, so that we could not suspect, that the Lancet in making Incision of the *Cornea*, any ways offended the same; because the *Pupil* continu'd exactly round; and a Stroke that is able to divide the Continuity of the Parts of the Eye, and cause a Suffusion of Blood, is but too capable of depriving the *Iris* of its natural Power of contracting. The

‘ *Pupil*, which before the Blow was one Line in
 ‘ Diameter, when the *Iris* was contracted, is at
 ‘ least two Lines in Diameter; at present the
 ‘ Transparency of the Humour, and Convexity
 ‘ of the *Cornea*, are the same as before. The
 ‘ Sight is now restored, and there remains no
 ‘ other Alteration, than what necessarily follows
 ‘ from the like Dilatation of the *Pupil*.

‘ From hence (says the Doctor) we may draw
 ‘ the following Remarks. 1. Incisions are made
 ‘ on this Part without Pain. 2. The Orifices
 ‘ unite again without any *Scar*, which has before
 ‘ been observ’d, but is known to very few.
 ‘ 3. We find that Plants of a discussive Quality
 ‘ have an ill Effect, the Patient finding himself
 ‘ much worse, after using a *Cataplasm* of *Chervil*
 ‘ and *Parsley*: These Plants, which are excellent
 ‘ in resolving extravasated Blood in the muscular
 ‘ Parts, having an ill Effect when applied to the
 ‘ Eye, by causing Pain and rendring the Sight
 ‘ more disturbed. We had twice Experience of
 ‘ this, and the Patient assur’d us both Times,
 ‘ that he found himself much better from the
 ‘ Use of the first Medicine. 4. When there is
 ‘ considerable Effusion of Blood in the Eye, in
 ‘ couching of a *Cataract*, and no Orifice made
 ‘ in the *Cornea* to let it out, it may so alter the
 ‘ Transparency of the *vitreous Humour*, as to cause
 ‘ a Loss of Sight, which sometimes ensues the
 ‘ Operation.

‘ I made the Incision higher on the *Cornea*
 ‘ than it ought to be, because the Person that
 ‘ perform’d the Operation, having never before
 ‘ made the like, and desiring to make an Orifice
 ‘ large enough to discharge easily the *aqueous*
 ‘ *Humour*, I thought it proper to make it near
 ‘ the middle of the *Cornea*, that the Point of
 ‘ the

the Lancet might not touch upon the *Iris*, which would have been of much worse Consequence than a *Scar*. The Effusion of Blood that sometimes happens in couching of *Cataracts*, is discuss'd again either by external Application, or the Help of Nature; but when the same is very considerable, this Operation may be necessary to prevent worse Consequences. As for the *Scar* that sometimes follows from an Incision of the *Cornea*, I remember I have read it in an ancient physical Author, that we need not fear it. But if we practise Incisions on Eyes affected with Inflammations, Ulcers or De-fluxions, which very much dilate the *Retina* and Vessels, an *Eschar* forms itself much more easily in these Cases, and consequently we ought to use the greater Caution, which was not so necessary in my Patient, who had no kind of Inflammation on the Eye or *Cornea*.

This Case, though not so artfully, I think, drawn up as might have been, may serve however to encourage you in some Cases to make Apertion of the *Cornea*, as in the *Hyposphagma*, where from some Accident of Blow or Fall, Blood happens to be effused thereunder; also in the *Hypopyon*, where Pus or Matter, which can no otherwise be discharg'd; after which, if the Humours have not been confus'd by the said Hurts, the Sight may be retriev'd, which must be otherwise obstructed, or admit it does not succeed, the Patient had a Chance, and is not worsted thereby: *Et satius est Remedium anceps quam nullum.*

The next we shall observe are the Wounds of the Nose, as also of the Ear.

As to both which, in making your Suture *Wounds of* where the same is wanted, you are to shun, as the Nose much as possible, the wounding of the *Cartilages* and Ear. with

with the Point of your Needle, lest thereby you stir up Pain and Inflammation; of the latter, you will find two remarkable Instances in my Discourse of the Diseases incident to the Skin: Of the former, take the following, first giving you this farther general Caution, that in all Wounds where these Parts, I mean the *Cartilages*, are concern'd, no unctuous or greasy Medicine must be applied. Instead of which, after their Digestion with the *Liniment*, you may direct the *Tincture of Myrrhæ cum Melle Rosæ*. or the *Balsamum Terebinth.* which I think one of the best Agglutinatives that we have, and as fit as most others in these Cases.

HIST.
LXIX.

A Wire-drawer in *Wood-street* coming late Home, had the Misfortune in *Cornhill* to meet with two raking Fellows, miscalling themselves *Gentlemen*, who intending a Quarrel, shoved the poor Tradesman into the Kennel, and upon his Reply, one of them drew out his Sword, and cut him over his Face: Upon which the assaulted Person crying out *Murder*, the Watch hastening up to his Assistance, each of them fled a several way; but the Man keeping up with his Adversary that had given the Wound, before the Watch could overtake them, had seiz'd and collar'd him: Being brought to the Watch-House at *Bishopsgate*, I was call'd up to dress the Wound, which with great Force by a Broad-blade Sword with a sharp Edge, had somewhat obliquely cut quite through the *Cartilage* of the Nose, therewith also dividing the upper Lip; the Tip of the Nose hanging over, and the Wound frightfully gaping.

When I had cleared away the Blood with a little Brandy brought by one of the Watchmen, and got all Things ready by me, at least the

best

best I could at that Time, I began by stitching up the Nose on each Side, and whilst an Assailant bore up the loose Tip, drew the Parts close, and made my Knot: This done, I made another upon the Lip, during which, the Assailant grew very tame and pliable, pulling off his Shirt to tear into *Compresses*, *Bolsters* and *Bandage*, and seeming indeed in the utmost Concern for his rash Action, as knowing there was a Statute, on which he might be arraign'd and tried for Life upon this Occasion.

To secure our Stitches, after I had sprinkled on a little *Bole*, in order to restrain the Flux of Blood, and suited a small Compress dipt in *Oxyrate cum Alb. Ovi*, on each Side the *Alæ Nasi*, for their better Support growing dry, I brought one narrow-folded Cloth a-cross the Lip pinning the same behind to a Handkerchief, tied round his Head for a Cap, with another of like Breadth, or somewhat wider, placing the middle thereof under the *Apex*, and bringing the two Ends obliquely upwards on each Side, where they were pinn'd for the farther strengthening of the divided Parts, and upholding the Suture.

In the Morning, after they had been before a Magistrate, and our Spark had given Security for his Appearance, he came to me to desire that I would meet Mr. *Bernard* at the next opening of the Wound, which was appointed for that Evening; assuring me, that if I could save the Man's Nose, I should have my own Demands. But at the Dressing of the Wound this first Time, little Encouragement could be given, so *exanguous* a Part as a mere Skin and *Cartilage* under it, affording none of the most warrantable Grounds for this *Symphisis* or Conjunction; though the Stitches appear'd to lie close, yet were the Edges
on

on the upper Parts inflam'd, and menacing a Separation, the Tip of the Nose cold also, and feeling, as it were, lifeless.

When I had fomented, in Company with Mr *Bernard*, with soft Flannels press'd out of hot Wine, I thoroughly besmear'd the divided Part from one Side to the other, as also the Lips with a Feather dipt in the hot *Bals. Tereb.* then cover'd them with Pledgets, faced with Liniment, laid gently down in some of the same, with my Plaister over all, and Bandage as at first; only snipping a Hole for his easier Respiration, in that supporting the Tip of the Nose; and then making a somewhat doubtful *Prognostic*, we left the Gentleman in great Consternation, who visited us daily to know the Issue of his Frolick.

After the fourth Day, the Wound continuing still inflam'd, but little digested, or rather *sloughy* on the Edge, the two uppermost Stitches were cut through, although the Lips were kept close together by the superior Bandage; and for the farthering of the Union, I had provided the dry Stitch, but the Site of the Wound so little favour'd the same, that I cannot say we had much, if any Advantage therefrom. The lower Stitches held, and there seem'd, after few Days, not only greater Warmth, but Appearance of Digestion in all Parts; the *Sloughs* on the Top loosening by Means of a small Quantity of *Præcipit.* mix'd with the *Liniment*, the Wound being still touch'd all round with the *Balsam*, before the Pledgets were laid on.

The same being cast off, left a *Chasm* on the upper Part very unseemly, and which I was much concern'd to get made up, the Passage lying open quite through to the Inside; however,

the lower Parts appearing likely to unite, the Wound being digested and mundified, instead of the *Precipitate*, I mix'd the fine Powders of *Aloes* and *Sarcocol.* with the *Liniment* upon the Pledget, and lightly touching the Edges with the warm Balsam, cover'd over the disjointed Parts therewith: To the wounded Lip I applied the Liniment by myself on the outside, and a Touch of an arm'd Probe dipt in *Mel. Rosar.* within.

The Patient all this while contenting himself with small Broths, Gruel, or other supping Liquors, taken through a Spout for the first Days, and after with a Spoon, that he might as much as possible avoid the Motion of the Parts affected.

At the Fortnight's End, the Union of the Lip, with the lower Part of the Cartilage, seem'd effected by the Help of a *Medium* of new Flesh in some Parts thereof: But the Gap on the upper Part still remain'd, though not so wide as it had been a few Days past.

Having taken out my Stitches on the Lip, one of which seem'd a little to pull down the *Ala* on that Side, I contriv'd another Sort of a Ligature, which being overcast or drawn in at the middle for that Purpose, receiv'd the *Apex* or Tip of the Nose, like a *Suspensorium* or Bag; and bringing the same a little higher than before, obliquely on each Side, fasten'd about the Temples, by which I brought the disjointed Parts close together, and so restrain'd them, for the greater Quiet, now dressing once only in two Days.

And thus the Patient keeping himself also exceeding still, and chusing rather to starve in a manner, than hazard his Cure, by moving even his Lips to speak or swallow but of Necessity, at length

length obtain'd his Cure; the Wound thus at last uniting, though perhaps the *Cicatrix* had been more seemly by an intervening *Medium*, could we have procured one; for by forcing up the Tip of the Nose to bring the severed Parts together at the Top, which had lost of their Substance, there ensu'd necessarily a small Retraction, or drawing up thereof, although the Patient, who expected an entire perishing of the divided Parts, was well content, his Sore especially being farther *salved* over with twenty Guineas given for *Smart Money* and dropping the Prosecution.

I shall not here enter into the Merits of the Practice of *insidious Noses*, ascrib'd to the famous *Taliocotius*, or, as he is called by others, *Tagliacotius*, unless to acquaint you, that I find the same to have been experimented long before it was practis'd by this Author. Thus we read in *Stephanus Gourmatinus's* first Book of Surgery of one *Blanca de Catanea*, *Vir egregio Ingenio* faith our Author, who used this way of *Engraftment*, as well of Lips and Ears, as Noses. Also of one *Balthasar*, *Pavonus Siculus* his Disciple as you will find in *Gilbert*, surnamed *Nozorene* Lib. 3. *Narrat.* whose Method is also laid down by *Alex. Benedict.* L. 5. C. 39. *Anat. Vesalius* likewise delivers not only the way of incising the Skin of the Arm, binding the same up to the Head, in which Posture it must be kept exactly still for several Days, but gives also his Remedy or Balsam for Agglutination of the Wound, to be met with in his 3d Book and 9th Chap. of *Chirurg.* *Parey* takes Notice of it in Lib. 22. Cap. 2. *Holtzafelius*, in an Epistle to *Moccinus* printed at *Fryburg*, Anno MDXXCIII. useth the following Expressions. *Non habet Italia hoc Tempore, superiorem Anatomicum Fabricio nostro*
Secundum

Secundas ab illo partes deferunt Taliacotio Bononiensi Chirurgo (qui jam tertia vice in restituendo Naso vero, Musculorum Brachii incisione, se admirandum exhibuit) tertias Arnatio ejusdem loci.

The second of these has written professedly upon this Subject, in his *Opus Chirurgicum cum sculpturis adornatum*, which I have by me. Somewhat on the same Head is observed by Hil-
lon. Cent. 3. Obs. 31. fol. 396. as well as in the
Tract. de Venust. Part. Consil. 136. fol. 359. But
 omitting this, as a Practice now entirely obsolete,
 we shall proceed to the Wounds of the Lips, Wounds
 which if not quite through, are to be stich'd up of the Lips.
 as others of the Face: But where the same is di-
 vided, if this be thought insufficient, the Needle,
 for greater Security, especially in such as are
 made by a blunt Instrument, may be left in for
 few Days, with the Thread twisted, as is prac-
 tised in the Operation for the *Hair-Lip*; besides
 which in large ones so divided, it may be of
 service to take a common Stitch, either above
 or below, if not both, for greater Security of
 the Union, applying on the Outside the *Lini-
 ment Arcæi*, and gently with a Feather con-
 veying a little *Mel. Rosar.* underneath within,
 whilst the Patient observes diligently to keep his
 Lips from moving, and to take his Nourish-
 ment, which must be liquid, through a Spout or
 Pipe.

The Tongue is also liable to be wounded, Wounds
 which if not wholly cut off, is carefully to be of the
 stich'd up: But here, having no Place for Bal- Tongue.
 ms, we lay the Stress upon some *vulnerable* De-
 coction in the way of Gargle, held in the Mouth,
 and spit out again, adding a little *Mel. Rosarum*:
 This last also by itself, or with more or less of
 the Tincture of Myrrh and Aloes, as the same
 happens

happens to be foul or putrid, with which dipping in an arm'd Probe, the wounded Parts are frequently to be moisten'd, first warming it for that Purpose.

HIST. lxx.

A young Gentlewoman under the Force of an *epileptic Paroxysm*, had her Tongue so absolutely divided at some Distance from the Tip, in the midst thereof, by the Sharpness of the *Dentes incisores*, as if it had been thrust through with a pointed two-edged Knife.

The Accident happening just by me, I was immediately call'd in, before the Fit was off, and perceiving the Nature of the Hurt, while her Head was held fast, I attempted to thrust in the End of my *Spathula*, farther back between the *Molares*; but finding it would not answer, presently stept Home, and brought with me a *Speculum* and an *Elevator*, such as we use to raise up a depress'd Skull; with the last of which forc'd in between the strongest of the *Teeth*, rais'd the Jaw, so as to make Room for the said Instrument on the Side opposite, with which an Assistant jointly raising, we set the Tongue at Liberty.

By this Disturbance she began to rouse, with a loud and profound Expiration, flinging about her Limbs, as in great Surprize, finding so many People about her; so that it was not without some Difficulty that we kept open her Jaw till she came to herself perfectly; when calling for a couple of Skewers, I order'd a Bit of fine Rag to be wrap'd round the Top of them, and put in at each Corner of her Mouth, when the *Speculum* and *Elevator* were removed: And thus we did, for fear that unawares the Tongue might be again compress'd; all this while her Head was held forwards for the Discharge of the Blood which

Sect. V. Of Wounds of the Head.

which ran down in great Quantity from the divided *Ranulæ* or *sublingual* Veins: In order to restrain the same, she held warm *Oxycrate* in her Mouth; but that not sufficing, I caus'd a Bit of *Alum* to be dissolv'd therein, and waited some little Time, till the Flux abated: Then coming more narrowly to examine the Wound, as she held it out to my View, I perceiv'd the Tip, for about half an Inch, held only together by the two Sides, and those so jagg'd and mangled by the *Canini*, that I could scarce think it possible a Union should be effected, though I resolv'd to try the Success of a Suture: Accordingly I pass'd a Needle, arm'd with a strong Thread, from the middle of the outermost Part, quite through at a proper Distance; then entering the Point thereof from beneath outwards on the upper Part, I drew the Sides close together, fasten'd the Tie, and cut off the Ends of the same; the Blood still continuing, and incommoding us in our Work: For the farther securing which, with as little Injury as possible to the Wound, or Hindrance to the Union, if the same could be brought to pass, I prepar'd a strong Tincture of the *Fol. Rosar. rub. Flor. Balaust. Cort. granat. in Vino rubro cum gut. xij. Spiritus Vitrioli acidulata, cujus ℥j. ʒj. Mel. Rosar. addita erat.*

This being frequently held under the Tongue without moving the same, the Blood flow'd in much less Quantity, and the Day following was altogether restrain'd; when the stiptic Tincture was alter'd for the following Gargle.

℞ *Rad. Sympbit. ʒʒ. Plantaginis cum toto Equiset. Sanicul. Bugulæ ana Mʒ. summit. Hyperic. p. j. Coq. in Aq. Hord. q. s. pro Colaturæ ℥j. cui*
F f
adde

Of Wounds of the Head. Sect. V.

adde Mel. Rosar. ʒij. & f. Gargarismus, cujus tepescit teneat Cocchl. duo vel tria in Ore sæpius in Die & ibi aliquandiu retenta sponte effluantur.

Besides this, she took between whiles a Spoonful of a *Mucilage* prepar'd of the Quince-Seed in Plantane-Water, with equal Quantity of the Honey of Roses, holding the same in like manner, and suffering it after to run out: And farther to assist Nature in this momentous Affair, she living just by, I called in two or three Times a Day, and with an arm'd Probe, lodg'd some of the *Mel. Rosar. per se* in the Interstice of the wounded Parts; from whence so large a Quantity of *Lymph* or *Saliva* proceeded, as occasion'd a perpetual Drivelling, and was ready to wash off our Applications so soon as they were us'd: Which continuing, that I might repress the Deluge of pituitous Humours, I us'd a Tincture only of the Rose-Leaves, with its *Mel*, chang'd for the *Syrupus de Rosis siccis*, at the same Time deriving them by the *Glandules* of the Guts, in the way of gentle Purgation, with a more immediate Revulsion of them by those of the Skin, from a *Vesicatory inter Scapulas*, which seem'd to afford great Help, the Quantity now lessening, and giving little Interruption.

At five or six Days end, some *Sloughs* digesting and coming away with the *Gargle*, I observ'd they had cast off rather from the Perforations made by the Dog-teeth on the Sides, which were sadly haggled, than from the Middle where the Stitch held fast, and gave me hopes of Union, which at ten Days end was so advanced, that being cut through, and lying loose in the upper Side, I divided the Knot with my Scissars

and taking hold thereof with my *Forceps*, drew it out, continuing still the *vulnerary* Decoction, and a frequent touch with the *Mel. Rosarum*, by which the Cavity was fill'd up, and the Wound heal'd.

During my attendance, she kept constantly the folded Rag behind, or betwixt the backward Teeth, lest in her Sleep the Tongue might again fall in between, or waking, her Fits unexpectedly return; the *Prophylactic* for which was directed by her Physician Dr. *Tyson*, who for this End sometimes order'd her Pills *ex Ammon. Galban. Myrr. Castor. Pulv. de Gutteta*, at other Times an Electuary with *Cons. Anthos. Flor. Salvia & Paralyseos, cum stercore Pavonis, Succino Cinnab. nativ.* likewise the *Pulv. Rad. Valerian. Sylv.* with sundry *cephalic Apozems, Julaps* and *Draughts*, which had so good Effect, that she who seldom mis'd before a Week, scarce ever a new *Lunar phasis*, for more than three Years past, without a Fit, had no Return till seven Months after, occasion'd then by Grief.

During these Applications to the wounded Part, she liv'd very abstemiously, taking nothing for a Fortnight's Time but Liquids or Potables, and those too swallow'd very leisurely.

Galen takes Notice of a Case somewhat like, *Hist. lxxxii* where one, under the Force of a Convulsion, bit off entirely the Extremity of the same Part, which healing after, was attended with some Impediments (as was reasonable to think) in the pronouncing certain Words. *Langius* observes these Wounds to admit of healing, as well as others, instancing in those who are burnt or bor'd through with hot Irons, as in Perjury and Blasphemy; as also others who have had great Part of the same cut off by Ruffians. *Parey* has an

Instance of one, whose Tongue was slit in two, *Lib. 9. Chap. 27.* The same Author proposeth also an Instrument for restoring Speech lost by these Accidents, as you will find, *Lib. 22. Chap. 5.*

We shall pass hence to the Wounds of the Neck, which if only dividing the Skin, or therewith the Flesh, are to be treated as those of the other Parts; but when the *Jugular Veins*, or the *carotid Arteries* are also wounded, you must proceed as we shall direct for those of the Veins and Arteries.

Wounds
of the
Neck and
Throat.

The Wounds of the *Aspera Arteria*, and adjoining *Oesophagus*, or of the Windpipe and Gullet, will require your utmost Care and Diligence, as well by Reason of their Nature as Office; in which you are carefully to make Suture with strong Thread, taking good hold of the Skin on each Side, bringing the Lips close thereby, and making also as many as the Length of your Wound shall require, at proper Distance from each other; after which you are to lay on a Pledget dipt in the warm *Liniment*, with a little of the *Balsam. Tereb.* melted down therewith.

The Situation of these Wounds renders them still farther troublesome, by Reason of the Difficulty to secure the Dressings, the Part being incapable of Deligation, and the Discharge of a more than ordinary *Gleet* spoiling their Digestion, and hindring the Effect of the Applications, those of the *Gula* more particularly, by Reason of the Liquids, which the Patient swallows for his Sustainance, are apt to run out of the Wound, besides a spumous Humour from the *Glands*, which is perpetually issuing forth.

For these Reasons I have known it practis'd by some, in order to retain the Lips of the Wound closer, to thrust the Needle through on each Side, taking Care not to hurt the *cartilaginous Rings*, as is usual in the *Hare-Lip*, and twist the Thread or Silk round about the same; when after Digestion, for the greater Exsiccation of the serous Humidities attending, they sprinkle on the fine Powder of *Sarcocolla*, or dress up with the Tincture of *Myrrh* and *Aloes*, and a little *Mel. Rosar.*

Where the Windpipe is not divided in the Wound, yet by Reason of great Fluxion, Inflammation befalls the Muscles, more particularly the Internal, as the *Thyreothyroarytænoides*, and the *Arytænoides* itself, the Passage for the Air is likely to be precluded, and the Patient thereby suffocated; you are to proceed as in the true *Angina*, not only making all possible Revulsion by *Bleeding*, *Blistering*, *Cupping*, sharp *Clysters*; but according to some, and that very rationally grounded (yet, I think, very seldom put in execution) with your Knife to divide carefully the Membrane between the *Rimulæ*, or Rings of the Air-Pipe, and introducing a *Cannula* below the Part obstructed, which is to be there continued till the Symptoms remit, and the Respiration is carried on as before, when the Pipe may be taken away, and the Wound admitted to heal up again.

This Pipe is order'd to be perforated on the Rim of each Side, for Strings to pass through, and fasten behind the Neck, in order to prevent its slipping out: And by this we are inform'd from Authors (for, I must confess, I never tried the Remedy, nor have I seen it enterprized by any other) that some People's Lives have been

fav'd under the most imminent Danger, and more might (not unlikely) had some of our Surgeons Courage equal to their Skill, or would venture thereby their Reputation; for want of which, I fear, many such like Accidents have become fatal, where they stood this Way a better Chance for Life; though some of them are no way to be retrieved, through the vast *Hæmorrhage* frequently attending the Division also of the neighbouring Blood-Vessels: But proceeding.

'Tis certain that these Wounds require the strictest *Regimen*, and the greatest Repose: All Foods are forbidden that require Mastication, as in the foregoing, even speaking is injurious: As to the first, let him be fed with thin Panada, Water and Barley-gruels, Chicken or other small Broth, Harts-horn Jelly, sometimes a rear poach'd or a new laid Egg: His Drink, Sack-whey, Barley-water, Almond-milk, or such like: Let the Neck be embrocated round about *cum Oleo Ros. vel Lumbricorum*, and a Decoction of warm Plants applied with Flannels, as a *Fotus* at the Times of Dressing, or good Wine supplying the Place, which is here often necessary twice a Day; nor must you suffer, as we have caution'd in the like Cases, any unctuous Medicament to come near these Parts. Farther, the Head is to be kept steady, rather inclining towards the Chin, being rais'd with his Pillow, where the Wound is athwart or transverse, as most commonly; or reclining, where lengthways, which is very rare (and yet I once saw a desperate Wound so made.) By both these Positions you bring the Lips of the Wound nearer to each other, and prevent the Stretch of your *Sutures*.

'Tis

'Tis our Misfortune indeed generally at these Times, that we have to do with *Lunatics*, *Hypochondriacs*, or melancholy despairing Persons: These Wounds being customarily made by those we call *Felo's de seipfis*, and who, if they escape, are many Times equally oblig'd to their Keepers and Nurses, as to their Surgeons, without whose constant Vigilance and Care of them, they would perhaps pull off their Dressings, and tear in sunder their newly stitch'd up Wounds.

An ancient Man coming out of *Essex*, under HIS. lxxij. some seeming Discontent of Mind, took up his Lodging at the *Dolphin* without *Bishopsgate*; and in the middle of the Night pulling a Razor out of his Pocket, drew the same strongly a-cro's the Wind-pipe, on the protuberating *Thyreoides*, or *scutiform Cartilage*; over which, moving the same backwards and forwards, he had mangled it in a frightful manner. When finding the Resistance too great for his entring thro', he made a second Attempt lower, and bringing his Hand towards the right Side of his Neck, open'd the *Jugular* on the same; whence perceiving the Blood running plentifully down, he lays aside his Razor, leaning himself over the Side of the Bed, that it might fall down upon the Floor.

In this Posture, before he was quite exhausted, he gave several strong Groans; which being over-heard by a Stranger, waking out of his Sleep, in another Bed, though in the same Room, gave an Alarm to the said Person, who calling out, but hearing no Answer, leap'd out of Bed, and crying aloud at the Window for the Chamberlain, a Candle was brought in, and the poor old Man found speechless, as under the Agonies of Death: However, finding by his Sighing that

he was still alive, they came presently for my Assistance, who understanding what had happen'd, hastned to him with such Necessaries as I thought I might have Occasion for; and coming to the Bed-side, found a Stream of Blood running thence to the farther End of the Chamber.

Having presently dipt a Sponge in Water, I clear'd away the Blood from the Neck and Throat, and discovering the Source of the *Hæmorrhage*, directed the Chamberlain to hold a thick Button of Lint, dipt in the *Colcothar*, up close to the Bleeding-Vessel, whose Stream ran now but low through the *Deliquium* attending, and the Mass almost drain'd off. This done, I more narrowly inspected the Wound, which I found at the Top in so many Places jagged and cut, that I could not see any Room for stitching there, or Benefit like to accrue thereby; but on the lower Wound I made three, one in the midst of the *Larynx*, where having turn'd the Edge of the Razor, sawing against the upper Cartilage, he had only made Impression on the *Rimula*, but miss'd the Membrane; and two at equal Distance on the Side, taking fast hold of the wrinkled Skin, the outermost being near adjoining to the wounded *Jugular*, where the Compress was still retain'd. Over this, when I had dress'd the other Parts with Pledgets arm'd with *Liniment*, I laid on a Bolster of Tow dipt in *Oxycrate*, and sprinkled with *Farina*, with suitable Bandage pinn'd behind to a Cap we had got for him, and a Neckcloth also for greater Security.

Whilst this was doing, he fetch'd, as we say, several Sighs; and having clean'd him, and put him on a fresh Shirt, we attempted to get down

two or three Spoonfuls of Wine, but could not, at least as I perceiv'd. I then call'd to him, and enquir'd, if he could not speak, that he would make some Sign by lifting up his Hand to mine, at which he star'd like one amaz'd, but could do neither.

Wherefore it was thought necessary to secure his Chamber-fellow, who freely surrender'd himself, without offering at an Escape, but readily assisting us all the Time, there being none but these two in the Room, and not certain but that the old Man had been assassinated, nothing found in his Pockets more than would pay for a Night's Lodging, although his Habit was very decent, but plain, like that of a Country Yeoman of the inferior Rank.

It was truly my Opinion that the Case was Suicide, the other poor Man calling out for Help, instead of making his Escape, which he never attempted; but how innocent soever, he was committed to the Compter in the Morning.

Having left Orders with the Chamberlain for his farther Management, till a Nurse could be provided, I went Home in great Concern for the poor Traveller, who was like to be sent to *Newgate*, yet upon Search, had only two Shillings with some Farthings found upon him; but in few Hours after, was earnestly entreated to go back, for they heard him speak. Being well pleas'd at the News, for the Satisfaction of my own Mind, I hastned to him again, and calling aloud (for I understood by the People of the Inn that he seem'd to them a little deaf over Night) ask'd him how the Accident came, and whether he had cut his Throat, or some Body else: He answer'd me very low and faintly, it was the *Devil* had done it. I then order'd the

Servants to come close to the Bed-side, when again put the Question, that if the *Devil* had done it, whether the Razor was not his, and held in his own Hand when the Wound was made. He replied, yes. I then desir'd he would tell us if the Stranger, who lay in the Bed just by him had any Hand in the Action, because he was brought into Trouble upon this Occasion, and might be hang'd for him: Upon which he answer'd with great Concern, as loud as he could No, no, no. Whereupon, drawing up a small Writing in the Form of an *Affidavit*, for each Witness to sign, together with one I made myself before the Magistrate, I went the same Day and procur'd the poor Fellow's Release; but this as foreign (for which you will, I hope, pardon me) passing by.

In the Evening I visited him again, and found he had not bled since he was dress'd; I order'd a comfortable Julap for his Refreshment, of which I saw him, though with great Difficulty, get down a Couple of Spoonfuls: At this Visit I gave him no farther Trouble, than by asking him if he was willing to live; to which shaking his Head as well as he could, and lifting up his Hands, he replied very earnestly, yes; and as I understood by the Nurse they had now provided him, he had been very devout in his Actions, and by some Expressions they could hear if they stood close to him.

The next Morning I perceiv'd him very sensible, and had some farther short Answers (for I found him too low for talking much) to certain Questions put to him on this melancholy Occasion. I defer'd the opening of the Wound till the next Day, for fear of renewing the *Hæmorrhage*; but left him with strict Charge, that no Person

Person should be admitted to hold any Conference with him, but that he should be kept as still as possible, and refresh'd with his thin Broths or Gruels, as he was able to swallow them.

But the Day following I took off the Dressings, intending to have made a Ligature on the upper Part of the *Jugular*, if I had seen a Necessity for so doing, the same lying so fair in this meager Subject; but finding a Crust upon that Part of the Wound, left the same undisturb'd, dressing the other Parts with the *Liniment* and *Balsam*; the mangled *Cutis* upon the prominent *Cartilage* at the Top, I besmear'd with the same warm Mixture, and a Pledget on the Outside, binding his Wounds up again, and leaving him with a somewhat reviving Pulse and much more sensible.

The same Night I went to see him, and had some farther Discourse with him; whence I gather'd, that by Reason of Discontent through some Misfortunes in the World, he had left his Home and rambled up to Town, not so much, I had Reason to believe, with any View of retrieving them, as to put an End to them in a strange Place, where he might be buried in Obscurity. But what I thought a little odd, was this, that from the first Time he was able to communicate his Mind upon this Affair, to the last of his Stay in Town under my Care, which was three Months, he would acknowledge no part of his Consent to the intended Murther of himself after this manner, but that it was done in his Sleep; for he well remembered he was dreaming at the Time, that he got up in his Bed, took his Razor out of his Pocket, and was cutting his Throat; but meeting with some Obstacles, he said he had an Apparition of the *Devil* coming to

to assist him, who, as he thought, took the Razor out of his Hand, after making the second Effort, and therewith immediately open'd the Vein, at which he concluded he was bleeding indeed to Death, and had accordingly put himself in a Posture for the same.

This Feat, I think, exceeds those of all the *Noctambuli* or *Visionaries* I have met with, the Man being no ways *frantic*, but serious and composed after, as any Man whatever.

I then ask'd him, if it was not in his Thought to destroy himself, at the Time he set out from his own Habitation? This he did not deny, but own'd that he was about to have thrown himself into a River twenty Miles from *London*, and was put aside the Execution for that Time, by some Children playing at the Bank; so that he came onwards, resolving now to try the Kindness of a Friend he had in Town. I once more put the Question close, if it was not in his Mind to cut his Throat that Night upon his going to Bed? which he utterly denied; nor was the Razor, he said, provided on any such Account being what he always carried about him when he went from Home. He did indeed confess, that if he was disappointed of his Errand, which was a Grant for the looking after some Hop-grounds of a Gentleman then in Town, and which, through the Interest of a Friend, he was in Hopes of the next Day he was resolv'd either to hang or drown himself, but solemnly declar'd it was never his Intention this Way to destroy himself; nor would he ever be persuaded otherwise, than that what he had done was in a Dream, and that he could not compleat the Work, till the Apparition help'd him: Once again, asking Pardon for this Digression, I return.

When

When I had treated the Wounds after the manner abovementioned for about a Week, I perceiv'd the mangled Skin above upon the *Thyroides* Cartilage like to slough off, and to leave the same naked a considerable Compass: wherefore strewing thereon a little of the *Præcipit.* I hastned the *Mundification*, and after dress'd up cum *Tinct. Myrr. & Mel. Rosar.* sometimes strewing thereon the fine Powders of *Sarcocol.* and *Aloes*, with a Pledget of *Liniment* dipt in the warm Balsam, in Hopes of incarning, but to no Purpose; the Stitch below, that particularly on the Windpipe, broke through, whilst the other on the Side held some Time longer, promising an Union: Nor, which was very remarkable, had we any farther Interruption from the Blood-Vessel, the old Man daily getting Strength, and taking his Nourishment in order to the same.

At the Month's end, we allow'd him to sit up, and to admit of Visits, which were made him by several charitably dispos'd Persons, who out of Curiosity came to see him, whilst others sent him their Beneficence; so that being now again in good Plight, well furnish'd with all Things necessary for the present, and a Purse rais'd for his Subsistence for some Time after, he grew daily more strong and chearful, and was able to come to me to be dress'd.

When the lower Wound was partly incarned, and partly united and heal'd up, the upper lay still open the Compass of a Shilling: Nor could I, with all my Care and diligent Endeavour, procure a Generation of Flesh upon the same; so that giving him Instructions to press out a Pledget from the *Tincture*, and apply thereto, with an adhesive Plaister over it, he came only once in

in three or four Days, till after ten Weeks Time the upper Part of the *Cartilage* crumbling off in several small Pieces, like an *Exfoliation* from a Bone long Time expos'd or lying bare; the Ulcer now drying up, the *Cicatrix* felt hard and immovable, as that over a Bone *disquam'd*. Indeed the Cartilage, through Age, was in a manner ossified, and being so, his Life was undoubtedly preserv'd; for the Razor could by no Means enter it, the Edge being thereby turn'd and blunted, as if it had been several Times drawn over a Bone, leaving only an Impression like that from a Saw, and mangling the external Teguments.

Several such like Instances may be met with in old Authors, as *Beniven*. Chap. 28. *de Abditis Nich. Font. Exam.* 3. fol. 11. *Joan. Agrig. Lib. 2. Jobertus* Cap. 1. *Tract. de Affect. Thorac. Brassavol. Com. in Lib. 2. Sect. 35. Hippoc. Jacotius Com. ad Aphor. 16. Lib. 1. Sect. 3. Coac. Htp. Guliel. Placent. Chir. Lib. 2. Chap. 7.* not forgetting old *Ambrose Parey*, who tells us three remarkable Stories of this Nature: One, where both *Jugulars* were divided, together with the Wind-pipe, yet the Patient happily recover'd. A second, though with less Success. he says, befel one of our Countrymen, who walking out into the Woods near *Vinciennes* with his Comrade, the latter understanding he had Gold about him, took his Opportunity, and unawares to the other knockt him down, and cut his Throat, dividing both the Wind-pipe and Gullet also, after leaving him for dead, hid him among the Vines, and return'd back with his Booty to the City; when after some Struggle in this miserable Plight, the wounded Man recovering his Legs, made up towards a Peasant's Cott, where he had all the

HIST.
lxxiii.

Help

Help the poor Folks could administer, who brought him strait into the City, where (being committed to our Author's Care) the Wind-pipe was stitch'd up, but coming to examine the *Oesophagus*, the lower Part was sunk down upon the Stomach, and lay out of reach; however, upon bringing the Lips of the Wound close, the poor Man began to speak, and discover'd the Murtherer, who was thereupon apprehended, and broke upon the Wheel, whilst the wounded Man surviv'd four Days after. His third History has some Resemblance with our last, where two Persons lying in the same Chamber, the one rose up in the Night, and under a Fit of melancholy Distraction, cut his own Throat, upon which the Case being thought desperate, his Companion was taken up, as the suppos'd Murtherer, and thrown into Prison, till as in the former Instance) the Lips of the Wound being brought close with *Sutures*, he regain'd so much of his Speech, as to acquit his Chamber-mate, and being supported with nourishing Clysters for some Days after, deceas'd in like manner.

I will here present you with one Instance more, accompanied with surprizing Success, communicated by Dr. *Musgrave* to the *Royal Society*, by which he endeavours to establish the Practice of *Laryngotomy*, in the Case of Suffocation by an *Angina*, or Inflammation of the Muscles of the Wind-pipe, precluding the *Air*, and by stopping the Respiration, destroying the Sick.

Laryngotomy, saith he, is highly to be valued, for that in the greatest Extremity, when a Man is in the most imminent Danger of being strangled, and to all Appearance, within
 ' a very

HIS. lxxiv.

‘ a very few Minutes of his last, by opening
 ‘ new Passage for Breath, it gives speedy
 ‘ certain Relief; and this when all other M
 ‘ thods fail, and without any considerable
 ‘ jury from the Instrument, the Patient, in
 ‘ Minute or two, is brought from the Strugg
 ‘ of Death, to a State of Complacency, E
 ‘ and Security. In the large Field of practi
 ‘ Physick, perhaps there is not any one Meth
 ‘ that works so great a Change for the better
 ‘ so short a Time. But we find this Operati
 ‘ very seldom practis’d, because that Gap wh
 ‘ appears upon cutting a Throat (the divid
 ‘ Parts being then drawn to their other mo
 ‘ fix’d End) together with the great Flux
 ‘ Blood, when the *Jugulars* and *carotid Arter*
 ‘ are also wounded, create in most Men a dre
 ‘ of this butcherly Operation, and make the
 ‘ especially who are unacquainted with Ana
 ‘ my, suspect all Wounds of the *Trachea* as mo
 ‘ tal, and oppose *Laryngotomy* under all the m
 ‘ urgent Circumstances.

But to wipe off this Prejudice, it may be
 firm’d, that the opening of the Windpipe is
 allowable and ought to be put in Practice in
 violent Quinsies, and other Dangers of Suffo
 cation, from Causes of a like Nature with the
 for that the Wound is curable (notwithstanding
 the Authority of the *Encyclopædia Chirurgica*
 the contrary) will appear by the following R
 lation sent by Mr. *John Keen* of *Rock* in *Cor*
wall, the Surgeon who perform’d the Cure.

HIS.lxxv. ‘ *Nicholas Hobb* of *St. Enodor* in *Cornw*
 ‘ aged sixty three, or thereabouts, was for
 ‘ time in *March* 1696, at a Distance from a
 ‘ Hou

House, set on by Ruffians, who first with a Blow on the *Occiput* knock'd him down, then transected the *Trachea*, somewhat beneath the *Pomum Adami*, together with the adjacent Muscles and large Blood-Vessels, from which he lost a very great Quantity of Blood, seen afterwards lying on the Ground. The Ruffians having robb'd him, and thinking him either dead or past all Recovery, left him. After some Time the wounded Man recovers so much Strength, and Sense withal, as to thrust his Neckcloth into the large and gaping Wound, and by Degrees to crawl Home to his own House.

When I had examin'd the Wound, and considering the great Flux of Blood, I was much surpris'd that the Patient was alive: *Lipothymy's* came frequently upon him, especially upon every little Motion of his Body, which were after succeeded by Convulsions. The Parts of the *Trachea* were at a vast Distance from each other; the lower Part being at every Turn of Inspiration sunk into the Neck as low as the *Clavicula*, just appearing again upon the Expiration. There seem'd to be no manner of Hopes of his Recovery: However, in order to attempt it, I directed a lusty strong Fellow to hold the Legs of the Patient over his Shoulders, and by this Means raise them, together with the *Abdomen*, above the *Thorax*, *Collum*, &c. in which Posture the divided Parts came so near to each other, that with strong waxed Thread I sew'd together several of them; but as to the Divisions of the *Trachea* or Wind-pipe, I secur'd them together by passing large Needles deep into the Flesh on each Side, and twisting strong waxed Thread about them, as in *Labio fisso*. Over all, for greater
VOL. I. G g Security,

Security, I applied a Restrictive (*ex Pulv. restr. Clowes*) covering the greatest Parts of the Neck with a Defensative *ex Bolo cum Alb. Ovi*, advising the Patient to lie as quiet as he could, who now began to speak, and as well as the Cough, Difficulty of Breath, and his Weakness would allow, softly, and with a low Voice, gave an Account of the Accident, as above.

An *Arteriac* was then made up for him to smoothe the *Trachea*, and promote Expectoration, *e Troch. Pest. Bat. cum Syr. Balsam. Tolut. Tussilag. &c.* by the Use of which his Cough abated, and he discharg'd much grumous Blood, with other Matter. For his Fainting and Convulsion I applied to his Nostril the *Spir. Succini*, embrocating the back Part of the Neck with a Liniment *ex Ol. Lil. Terebinth. Succin. &c.*

The next Day I found the Convulsions had left him, nor had he from that Time any more fainting Fits; but on the fourth Day, the Stitches were torn open, the Wound appearing large enough to admit a middle siz'd Hand, a great Part of the *Oesophagus* appear'd in View, much inflam'd and scratch'd by the Instrument. The *Epiglottis* did not, as usual, cover the *Rim* of the *Larynx*, so that I could easily see up into the Mouth: Part of the annular *Cartilage* was cut obliquely, and hung only by a little Fibre to the upper Part of the *Larynx*, &c. Indeed I met with frequent Ruptures, the waxed Thread and Needles often fretting through the Flesh they held; but as often repeated the Stitches in the same Manner and Method as before. About the tenth Day, the largest Blood-Vessels appear'd conglutinated, and cover'd with Flesh, the *Gula*

of good Aspect, the Inflammation of that and all the neighbouring Parts gone. I now dress'd up with the *Liniment. Arcæi*. On the eleventh Day the symptomatic Fever seem'd likewise going off, and the Wound well digested. His Diet, so soon as he could swallow, was prepar'd of Broths, also poach'd Eggs, and Ale-meats. The Cough continuing a long Time very severe, was at length overcome, by duly adhering to the *Linctus* aforesaid, together with the *Balsam Lucatel.* and *Cons. Rosar.* also pectoral Decoctions, with a *Loboc, ex Ol. Amygdul. Syr. de Meconio, &c.* About the twelfth Day we discover'd little Portions of new Flesh arising, not only from the Membrane of the Gullet, but also out of the Substance of the Cartilages themselves, both on the upper and lower Parts of the divided *Trachea*. The external containing Parts of the Neck began also to incarn, new Flesh arising, and apparently lessening the Dimensions of the Wound, every Time there was Laceration of the Stitch, in so much, that two Needles were now sufficient; whereas, in the Beginning, I us'd no less than six; and those carneous Portions, both of the *Trachea* and the exterior Parts, gradually joining and intermixing, became one solid Cicatrix, from each end of the Wound, almost to the middle of the Wind-pipe, where the Air continued still in some Degree to have an *Exit*. About the fifteenth Day I remov'd several Pieces of Bones, which had contracted a *Caries* on the Cartilage, which in this old Man, as in many others, was grown *osseous*, being thrust out by the new Flesh. He now swallows with little Trouble, eats sufficiently, and is nourished in Proportion. The Aperture on the twenty-

‘ sixth Day was near closed, and four or five
 ‘ Days after the Sides of the Wound were per-
 ‘ fectly join’d and cicatriz’d; the *Trachea* per-
 ‘ forming its Part in Respiration, as at other
 ‘ Times, without any considerable Inconveni-
 ‘ ence. He speaks indifferent well, but is forced
 ‘ to take Care in swallowing, the *Rimula* not be-
 ‘ ing exactly shut, as before the Wound, which
 ‘ makes Liquor of any sort more apt to fall into
 ‘ the Passage of the Wind-pipe, and so occasion
 ‘ a Cough, Hoarsness, &c. nor can he swallow
 ‘ dry Meats so well as formerly, yet in other
 ‘ Respects he is as well as ever.

The following being a Case happening under
 my own Inspection, and as to many Incidents
 scarce parallel’d in History, at least as befalling
 the same Person, I have thought proper also to
 acquaint you with.

HIST.
 lxxvi.

A Gentlewoman under the Power of Melan-
 choly, upon some Discontent between her Hus-
 band and herself, got up in her Bed, and taking
 a Pen-knife out of his Pocket, which she knew
 he always carried there, whilst she was loosening
 his Neckcloth in order to execute her tragical
 Design, he wak’d, and starting up in his Bed,
 perceiving her also sitting therein, leap’d out;
 when she plainly told him, upon asking her De-
 sign, that the Devil had put her upon cutting
 his Throat, and that she would have done it, if
 he had not wak’d; Upon which, drawing back
 the Curtain, and going about to take the Knife
 out of her hand, she forcibly struck the Point
 of it into her own Neck, where the Edge of the
 same, first cutting through the left Side of the
 Wind-pipe, entred after into the Gullet.

Th

The Wound being small, there was no room for a *Suture*; but in Regard of a Flux of Blood, I dress'd up dry for the present:-And the next Day, perceiving some Spume or Froth from the *Aspera Arteria*, upon taking away the dressings, I held a Bit of Wax-Candle near the Orifice lighted, and observ'd the Flame strongly waving to and fro by the Passage of the Air. I then offer'd her a Coffee-dish full of Sack-Whey, but she refus'd drinking; till with much Entreaty I prevail'd, and she with seeming Difficulty, and in great Pain, gulped down a little, some of which ran out of the Wound; and a *Singultus* presently seized her, holding some few Minutes, as it did at other Times, when she took any of her liquid Sustenance.

I then dress'd up the Wound with a short Tent, only entring the Orifice in the Skin, dipt in the warm *Balsam of Turpentine*, of which she had a Taste presently in her Mouth, as she complain'd, with a Pledget of *Liniment* and a sticking Plaister, embrocating round about *cum Ol. Lumbricorum*.

At the Times of Dressing she was seiz'd with a great Streightness and Oppression, saying, as well as she could speak, that she should be choak'd for want of Breath; which put us upon the greater Dispatch in covering up the Wound, when soon after she breathed again with more Freedom.

About the Week's End, the Puncture in the *Gula* seem'd to consolidate, no more of her Nourishment issuing by the Wound, with much less of her Hickup after swallowing; that likewise in the Wind-pipe was in a fair way of uniting; but growing fullen, she took her Opportunity and would pull off her Dressings, refusing also

her Food; being a Woman of great Spirit, she could not bear the Reflection and Reproach, she concluded, she had now brought upon herself; and therefore seem'd concern'd at nothing more, than the want of an Opportunity more effectually to dispatch the Work. However, counterfeiting Concern for what she had done, and seeming now willing to escape, she grew pliable again, and took her Sustenance, suffering also her Dressings to lie on, by which the Wound again digesting, the Inflammation on the Windpipe went off, and the Tent being left out, we dress'd only with an external Pledget faced with *Liniment*, and then dipt in the warm *Balsam*.

Soon after this she got up, and walked about her Chamber in Company of her Nurse, who was order'd to have a watchful Eye over her; and when the Wound was just heal'd, she took an Opportunity, believing the Woman asleep, to tie her Garter about her Neck, and fasten the same to a Clothes-peg in the Chamber, on the Inside of the Bed; but the Weight of her Body pulling down the Peg, and making a great Noise, the poor affrighted Nurse call'd out for Help, and she was a second Time reprieved a little longer, much contrary to her Desires.

She now again grew sullen, and refus'd either to eat or drink for some Days, till her spiritual Physician taking much Pains, perswaded her, and brought her into better Temper.

After this I heard no more of her for several Weeks; when the Family believing her Melancholy was worn off by her more chearful and orderly Deportment; however they had still an Eye upon her; yet watching with great Cunning, and a dissembled Shew of as great Easiness of her Mind, she ran from her Keeper out into the Leads
on

on the Top of the House, three Story high, and flung herself over the Rails: Yet here also was she wonderfully preserved; for that a Penthouse over the Kitchen Window taking off the Force of the Fall, she fell together therewith upon the Free-Stone Pavement, without any remarkable Bruise or broken Bone, only a Wound upon the Scalp, occasion'd by the Edge of a Board in the Yard.

Whilst I was treating this Wound, I perceiv'd now she grew desperate, and therefore had two or three always to watch with her; so that finding she had no other way left to end her Misery in this Life, she obstinately opposed all Manner of Subsistence, spitting out all that was forced into her Mouth; in which Condition she held out near a Fortnight, or till the Wound was here also cured, notwithstanding the poor State of her Blood, and the *Dyscracy* of its Juices; in which Time they could never perceive her sleep. And thus this miserable Gentlewoman, one of the most beautiful and ingenious of her Sex, missing Death by the *Stab*, *Throtling*, and dashing out her Brains, as she intended, had now no other way left to procure what she so earnestly desir'd, than to with-hold the Support of Life, and starve herself.

I remember on such like Occasion, to have HIST. rescued the same Person twice by timely Bleeding, lxxvii. after as timely cutting of the Cord, with which he was about to strangle himself; in the same Month I stiched up a large Wound cross his Throat, where the Wind-pipe and Blood-vessels escap'd the Knife, which he had made to destroy himself; and having healed it, for want of that Inspection which ought to have been taken over him, he got down to the *Thames* Side in the

Night Time, and there dispatch'd himself by drowning.

These surely are those Spirits mention'd by the sacred Writer, where he thus expostulates, *That the Spirit of a Man will support his Infirmities, but a wounded Spirit who can bear?*

The next we shall observe are the Wounds of the *Breast*, call'd by *Anatomists* the *middle Venter*, which befalling only the containing Parts, require nothing differing from those of the same in other Parts of the Body: But in Wounds penetrating thereinto, the greatest Judgment will be requir'd, not only in making a sound *Prognostic* but in the due *Regimen* or *physical* Prescription, as well as in the *chirurgical* Application; without the one of which you will hazard your own Reputation, as without the other your Patient's Life: And here by the way, I cannot but observe that common Method of making *Reports* before the *Coroner's Inquest*, with Relation to the *precise Breadth* and *Depth* of Wounds penetrating this Part, together with those of the *lower Belly*.

Of making
Reports to
the Coroner.

Whether the Law requires such an exact and positive Account, as to the *Breadth* and *Depth* of a Wound, made by an Instrument entering the Parts of the Body, I know not, but think the same to be of great Uncertainty, and sometimes impossible to be thus nicely gaged or determin'd to several Inches: for admit the Instrument *cylindrical*, as that we call a *Tuck*, and some of the narrow-bladed Rapiers; or all of a Breadth, as in others, also in some Knives falls out: The external View of such a Wound will give little Insight into its Depth, no more than its Probation; nor will it be always discoverable even upon *Dissection*.

Section, which is commonly appointed before the Report.

There is indeed somewhat more of Certainty, when discovering what particular Part received the Hurt, and examining the Distance from the outward Orifice to the Extremity thereof, inflicted in such contain'd Part: But suppose the Instrument entred through; as for Instance, the Lungs or Heart in the *middle Venter*, the Stomach or Guts in the *lower*; or if the Wound therein, through its Smallness, or Change of Position from what it was at the Time of inflicting, is not discoverable; or lastly, if it enter'd the *Diaphragm* from below into the Cavity of the *Tborax*, or from above into that of the *Abdomen*, or went quite through the Trunk: In either of these Cases, I say, I would desire any of you to tell me how you can make Report that the Wound was just three, five, or seven Inches, any more than six, ten, or fourteen, or perhaps four and twenty.

Some farther Direction we may have, it is true, in this Affair, by viewing also the Instrument immediately, where it can be found; when if it was not designedly wip'd or clean'd before, you may sometimes discover how far it has been stained by the Blood or *Halitus* of the Body, which will give us more Light as to the Depth, than the outward Dimensions of the Wound, where, after Death, the Parts subsiding, the same may happen to appear less, or distended by *Flatus* from the putrid Ferment, somewhat larger than when first made.

I have hinted thus much, to shew the Invalidity or Uncertainty of such Reports in general, and I think their Inutility is as manifest: The
Design

Design of the *Inquest* being surely intended to receive Information, whether the Wound was *mortal*, entring either a lesser or greater Depth into the Body, or wider or narrower on the Outside; since it is Fact, that one Man may be *mortally* wounded by an Instrument entring only two or three Inches, whilst another escapes where the same has pass'd two and twenty; it being out of Dispute, that neither *Breadth* nor *Depth*, simply consider'd, but the Nature of the Parts lying in the way of such Instrument, makes the Wound *mortal* or *recoverable*: So that the Surgeon, who deposeth upon Oath, that to the best of his Judgment, after strict Examination the Wound, or other Hurt, was the Occasion of the Person's Death, enquir'd after by a Jury impanel'd for that End; has fully answered the End of the Law, as well as satisfied his own Conscience.

But if Judgment is required to be given, the Person yet alive, concerning the Danger or Condition of the Wound; either for private Satisfaction of Friends, or in order to the Commitment or Bail of the Offender, it is necessary first of all, in order to gain a farther Knowledge of the particular Parts wounded, that, as before observ'd, we inform ourselves the best we can of the Posture of the Body at the Time of receiving the Wound; as whether the wounded Person was upon the Ground, whilst he who gave it, was on the Steps or Stairs above him, *vel vice versa*, the wounded above, whilst the Assault was from below, or if both were on the Level; also whether the Thrust was made Sideways or Slanting, the wounded Person turning his Body, or if direct and fore-right. When the latter falls out, the Probe will more readily discover the Penetration,

penetration, or the Flame of a Candle, supposing it in the Chest, otherwise this last may deceive you; even the Probe itself, unless guided by these Directions, may meet a Stop through the Intervention of the Membranes or Muscles by their Situation alter'd.

To come then to the Purpose, and discover ^{Diagnostic} what Parts are hurt within, we must collect what ^{Signs of} we can, from the Symptoms, ^{Parts} the Situation of the ^{wounded} Wound outwardly, and the Parts opposite thereto ^{within the} on the inside. ^{Body.}

Thus, if the same were made direct, especially if accompanied with great Weight and Oppression of the Breast, straight Breathing, with a coughing up great Quantity of florid, spumous, or frothy Blood, the Wound about the fore Part of the Sternum or Breast-bone, or rather inclining to each Side, we boldly pronounce the Lungs to be wounded; for according to Hippocrates, *Qui Sanguinem spumosum expuunt, his ex Pulmone rejectio fit.*

If Syncope or Fainting, cold Sweats, large Hæmorrhage, and sudden Prostration of the vital Faculties, the Wound situate rather in the midst of this Part, the Heart and its Blood-Vessels: Which Wounds you are to take Notice may be also given by a Push through the Sides, or more backwards, directed to the Center of this Region, as well as those directly forwards; which shews the Necessity of enquiring after the Posture of him that is wounded, as well as that of the Person who was the Occasion thereof.

Again, if there be violent or acute Pains, interrupted or sobbing Respiration, Singultus, Spasms, or Convulsion, perpetual Vigil, with great Inquietude, Paraphrenitis, or Delirium, the Wound below the Sternum and Ribs, the Diaphragm or Midriff:

rif: Nor does it here require, as aforefaid, that of Neceffity the Wound fhould be precifely circumscribed, or answer directly to the Parts within, fince he that is above, may thruft the Weapon thence down, and he below, upwards into the fame Part.

When a gravative, heavy, or dull Pain with Hemorrhage alfo at fome Times, the Wound on the right Side beneath the Ribs, the Liver; as on the Side oppofite, the Spleen.

If between thefe, in the middle, juft under the Cartilago Xyphoides, accompanied alfo with Fainting, cold Sweats, the Chyle iffuing forth at the Wound, the Ventricle or Stomach.

If behind, on either Side of the Spine, upon the Region of the Loins, efpecially if Blood enfue together with the Urine, the Kidneys, Nam, ut inquit Hyppocrates, qui fponte Sanguinem mingunt, his renibus Venæ ruptionem fignificat.

If acute Pains, Deliquium, Singultus, cold Sweats and Convulfions, the Wound about the Navel, the fmall Inteftines.

If lower on each Side, with Excrement iffuing from the Wound, the larger, particularly the Rectum, where the Symptoms are not altogether fo acute, nor the Wounds fo abfolutely mortal.

If forwards, in the middle of the lower Part of this lowermoft Region, juft above the Pubes, the Urine difcharging by the Wound, and other Symptoms of thefe nervous Parts affected, we difcover the Bladder of Urine to be hurt, as the Womb may happen to be a little higher up, and fo of the reft, inferr'd from the customary Accidents or Symptoms, together with what iffues from the Wound rather than wholly from its Situation.

Nor must you imagine that these Parts cannot be injur'd, because the Wound varies several Inches in its Appearance from our particular Descriptions: Since, for Instance, the *Liver* taking up a large Compass, and filling the right *Hypochonder*, extends itself beyond the Pit of the Stomach on the other Side, some Part lying over the same: Downwards also it reaches beneath the bastard Ribs on that Side, extending almost as low as the Navel before: So that a Wound happening any where within this Compass, may not only enter the *Liver* but the *Stomach* also, lying under the Concavity thereof.

The *Spleen* takes up a Part, tho' not so large as one, of the left *Hypochonder*, opposite to the *Liver*, betwixt the *Stomach*, and the Articulation of the bastard Ribs with the *Spine*, reaching down to the Edge of the lowermost.

Between these lies the *Stomach*, immediately under the *Midrif*, or Partition separating the *Thorax* from the *Abdomen*, being cover'd, as we said before, on the right Side by the Hollow of the *Liver*, on the left Side adjoining to the *Spleen*: Behind lies the *Pancras*, and forwards it is touched by part of the Gut *Colon*, or the second so called of the larger or thick Guts; so that by this Situation and Connexion, you see it may be possible for several Parts to suffer by the same Wound.

The *umbilical* Region is taken up mostly by the *Intestina Tenuia*, or the small Guts, which together with the thicker or larger, fill up a great Part of the Cavity of the *Abdomen*, winding about from one Side to the other thereof, in a very small Compass, considering their great Length,

Length, by their close Connexion throughout with the *Mesentery*.

The *Kidneys* are seated in the *Loins* behind the *Intestines*, being each, in grown Persons, about five Inches in Length, reaching the Depth of three or four of the *Vertebræ Lumborum*, two or three Fingers broad, and an Inch or more in Thickness; the right *Kidney* being lower than the left: They are gibbous or convex to the *Loins* and concave or hollow to the Cavity of the *Abdomen*.

The *Bladder* lies in the fore, but lowest Part of the *Abdomen*, a Cavity formed by the *Os Sacrum* behind, the *Ileon* on each Side, and the *Os Pubis* before; which Cavity is called *Pelvis*, the *Bason*; the Neck thereof bears upon the *Intestinum rectum*, whence in searching for the Stone the Fingers, one or more, are introduc'd into the Fundament, to feel for the same, thro' the Coat or Membranes thereof; likewise in cutting by the *Gripe*, as it is call'd, being enter'd this Part and the Stone explor'd thereby, is brought toward, and held close against the *Perinæum*, where the Operator enters his Knife on one Side of the Seam, and cuts through the Neck of the *Urethra* upon the Stone itself, which he turns out of the Wound with his Hook, and this is call'd the lesser *Apparatus* in *Lithotomy*.

In the same Cavity is placed also in Women the *Uterus*, as it were, between the Bladder and the *strait Gut*.

Now as the *Lungs* and *Heart* are the principal contain'd Parts in the Cavity above, filling it up in a manner; so are these we have now enumerated the chief in this below, of which I have given only this slight Sketch, referring you for a more solid Instruction, to the Anatomy or Dissection

Section of human Bodies; as we recommended at the Conclusion of our last.

Dr. *Sampson* once observ'd the whole Order of the *Viscera* inverted, at a private Dissection; as the *Liver* on the left Side, with the *Spleen* on the right, &c. but these are so very uncommon, as not to break in upon our foresaid Description.

I remember I once took a circular Measure of the *Abdomen*; and making the Navel my *Center*, divided the *Periphery* into several exact *Sections*, like those in the *nautic Compass*: Then piercing each in several Places at exact Distance, and examining what Parts, and what Part of each Part was prick'd by the Point of a Rapier thrust in, by measuring after from the Navel of another Person of common Growth or Stature, I have seldom err'd in my *Prognostic*, that whatever Part of this Region you prick'd directly deep enough, you must necessarily wound such Bowel underneath, and within few Lines Breadth, such a Part of the said *Viscus*, whether *Liver*, *Spleen*, *Stomach*, *Bladder*, &c. and this I extended not only to the Surface of the said contain'd Parts, but entering still deeper, or quite through (if not wanting) I could presage the Wounds of the *Pancreas*, *Kidneys*, *Gall-Bladder*, also the Trunks of the Blood-Vessels.

The greatest Uncertainty being in the punctured *Intestines*, and this by varying through their *peristaltic Motion*.

How far such like Experiments might be improv'd, and with what Advantage to the *Præsegiū Chirurgicum*, I shall leave others who come after me to determine; whilst I now give you an Account what Wounds are of themselves commonly deem'd *mortal*: Which are those of

Wounds
commonly
deem'd
mortal.

the *Brain, Heart, Lungs*, with the *Trunks* of the *Blood-Vessels*; the *Diaphragm*, I mean, its nervous Part, the *Liver, Stomach, Small-Guts* with the *Kidneys* and *Bladder*: Yet these are not without their Exception; as Wounds of the *Brain*, such as have miss'd the *Blood-Vessels* in the *Lungs*, nay, perhaps the *Heart* itself, if we may believe some Writers, also of the *Liver* and *Kidneys*, have been recover'd; as likewise those of the less nervous Part of the *Stomach*, of the fleshy Part of the *Midrif*, but especially of the *Bladder*, are often heal'd: Instances of all which you will find in our Supplement to this Discourse, so that no absolute Judgment must be given, till some deadly Symptom approaches, because it has been often observ'd, that some Persons, by a singular happy Temper or lucky Accident, have escap'd desperate Wounds, while others, by some ill one, or Irregularity committed, have sunk under those which were esteem'd more light or trivial; which leads us to the Cure of Wounds, first of all of the *Breast* and then of the *Belly*, so far as they admit thereof.

Wounds
of the
Breast pe-
netrating.

In Wounds penetrating the *Breast*, let the Surgeon introduce a small Tent, secured always with a Thread, for its after Extraction, and dip before in the warm Liniment of *Arceus*, or mix with a small Quantity of the *Ol. Hyperic.* with a Pledget arm'd with the said Liniment, and a Plaster over it, fastened by rolling; when if no ill Symptom supervene, let the same be gradually lessen'd and shortned, till the Wound is heal'd up as a simple Puncture, by no Means distending it which would hinder *Digestion*, by the Increase of *Pain* and *Fluxion*, as also *Inflammation*: But if any Accident or ill Symptom should accom-

pany, as *Fever*, *Convulsion*, *Delirium*, internal *Hæmorrhage*, or the like; let the Physician be timely consulted, that by directing *Venæsection*, together with some *pectoral*, *balsamic* and *traumatic*, or *vulnerable* Prescriptions, the same, if possible, may be averted; it being very plain, that in these Cases, the great Stress lies upon *Nature*, assisted by such internal Medicaments, as in Cases of Inflammation, are best fitted to take off the *Tension*: To which Purpose, beyond most others, conduce free *Bleeding*, *pectoral Decoctions* and *oily Draughts*, *Linētus's* also of the *Ol. Lini* and *Sperma Ceti*, mixt up with some of the *pectoral* Syrups, such as the *Syr. Capil. Veneris* or *Dialth.* also the *Syr. Papav. Errat.* in case of inward Bleeding, some proper *Restringent*, whether in the Form of *Electuary*, *Apozem*, or *Julap*, with other *emplastic* and *agglutinating* Remedies; which in the Physician's Absence, or where such Assistance is not to be had, but at great Distance, as in many Country Towns and Villages, you may direct yourself.

Of the first Sort, are the *Conf. Rosar. Bals. Lucatel. Bolus verus, Ter. Japon. vel Ter. Lem. Lap. Hæmatit. Sang. Draconis. &c.* which may be mixt up with the *Syr. Balsam. de Rosis siccis de Meconio*: *Julaps* may be prepar'd *ex Aq. Germ. Querc. Plantag.* with a little of the *Aq. Cinnam. Hord.* and the *Acetum destillatum*, also the *Tinctura Rosar.* acidulated with a few Drops of the *Spir. Sulph. vel Vitriol.* The *Suc. Urtic. Urent.* by itself, or sweetned with a little white Sugar, is prevalent also in these Cases. *Apozems* are prepar'd of some of the *stiptic agglutinative Simples*; such are the *Rad. Symphit. Tormentil. Bistort. Fol. Plantag. Equiset. Pilosel. Millefol. Bursæ Pastoris,*

&c. edulcorated cum Syr. Myrtin. Cydon. Hederæ terrest. Urticar.

Emplastics may be form'd into Mucilages, ex Sem. Cydon. Malvæ, Plantag. Hyosciami & Papav. alb. to which are added the Gums Arabic. Tragacanth. extracted in Aq. Plantag. vel Sperm. Ranar. some Forms of which, by way of Specimen, I shall here present you.

℞ Conf. Rad. de Symphito ℥j. Bals. Tolut. cum q. s. Vitel. Ov. rec. solut. ℥i℥. Bals. Lucat. ℥ij. Ter. Japon. ℥j. Syr. de Succo Sympb. q. s. ut f. Elect. vel,

℞ Conf. Ros. rub. Conf. Rad. de Symphito ana ℥j. Balsam. Lucatel. ℥℥. Ter. Japon. Lapid. Hematit. Boli veri ana ℥j. Sang. Draconis ℥ij. Syr. de Mecon. q. s. m. f. Elect. cujus capiat Quant. Nuc. Mosc. Mane 4^a Pom. & h. s. superbibendo Haustulum Aposematis seq.

℞ Rad. de Symphito ℥j. Fol. Sanicul. Bugulæ ana Mj. Hyper. Millefol. ana M℥. Coq. in Aq. F. q. s. pro Colaturæ ℥i℥. sub finem addendo Vini rubri ℥iv. Colaturæ adde Syr. Bals. Tolut. ℥j. & f. Aposema.

℞ Conf. Rosar. ℥℥. Ter. Japon. ℥j. Alum. rup. ℥℥. Extr. Thebaic. gr℥. Syr. de Rosis sic. q. s. m. f. Bolus, sexta quaque hora sumendus, superbibendo Cochl. iv. Julapij seq.

℞ Aq. Plantag. recenter destillat. Gemmul. Querc. ana ℥iv. Cinnamom. Hord. ℥ij. Coral. rub. ℥j. Sacch. q. s. m. f. Julap. vitrum agitando tempore usus.

℞ *Herb. Millefol. Plantag. Bellid. Urticar. Urent.*
ana q. s. ut ex Contusis exprimetur Succus ad Quan-
titatem ℔j.

℞ *Succorum horum depuratorum ℥ij. Syr. de*
Meconio ℥ij. m. f. Haustus quarta quaque hora su-
mendus: vel

℞ *Rad. Consolid. rec. ℥iv. Bursæ Pastor.*
Plantag. ana Miv. contunde in Mortario marmo-
reo, & forti Expressione fiat Succorum Expressio,
quæ cum q. s. Sacch. fiat Syrupus sine Clarifica-
tione; cujus capiat Cochleare unum vel duo sæpius
in die.

℞ *Fol. Hederæ, Tussilag. Capil. Ven. Auriculæ*
Muris ana Mj. Summit. Hyperic. Mß. Santal. rub.
℥ij. Liquirit. Passul. ana ℥j. Coq. in Aq. F. ℔iij. ad
Lib. ij. & f. Aposema de quo bibat Haustulum sub-
inde.

℞ *Conf. Rosar. Sympbit. fr. Cynosb. ana ℥ß. Sang.*
Drac. Boli veri ana ℥ß. Ter. Japon. Coral. rub. La-
pide. Hæmatit. ana ℥ß. Syr. Papav. errat. q. s. m.
f. Elect. de quo capiat Quant. N. M. ter in die cum
Haustulo Aposematis superscripti.

℞ *Aq. Gemmul. Querc. ℥ij. Aceti destillat. ℥ij.*
Aq. Cinnam. Hord. Syr. de Mecon. ana ℥ß. m. f.
Haustus.

℞ *Conf. Rosar. ℥j. Pulv. Amali ℥ij. Ter. Japon.*
℥j. Album. Ovor. conquassat. q. s. ut formetur Lo-
boch; cujus capiat Cochleare singulis vel alternis ho-
ris dum perstet fluxus.

℞ *Tinct. Rosar. Bateanæ* ℥j. *capiat Cochl.* vi. *vel*
vij. in intervallis.

*Vulnerary
 Plants.*

But farther to assist *Nature* in healing of the internal Wound, the Blood is moreover to be imbued with the sanative Vertues of some proper *Vulneraries*, made into a *Diet* for the wounded Person: Whence they are denominated *Traumatic*, of which Number, besides some of those already recited, are these following, *viz.* *Fol. Scabiosæ, Saniculæ, Bugulæ, Verbenæ, Pimpinell. Marrub. Alchimillæ, Veronicæ*, all the *Capillaries*, the *Fol. Agrimonie, Herniariæ, Quinquesfol. Ofmundæ Regalis, Hyperic. Tussilag. Lunariæ, Pyrolæ*, with several others, out of which the judicious Artist may chuse what he likes best, or what may be most fitting for his Purpose.

But in the Use especially of the more *restringent* and *emplastic* Remedies, it is necessary we distinguish the proper Times of their Exhibition; lest we still farther coagulate the Blood that is already thrown out of the Vessels, and supposing it to arise from some of those wounded in the *Lungs*, thereby shutting up the same, instead of forwarding the Discharge, endanger strangling of the Patient: To obviate which, we must put you in Mind, that you continue these or the like Prescriptions, no longer than whilst the Blood comes fresh from the Wound; after which, for disburthening the Parts of what is *extravasate*, and would otherwise putrify therein, you must admix some inciding and attenuating Medicines together with your *Restringents*, avoiding however all such as are hot, in order to promote the Expectoration thereof. To which Purpose, beyond most others, conduce those which are
 somewhat

somewhat acid, as the *Syr. Acetos. Limon. de 5 rad.* mixt up with the *Syr. Myrtin. Urtic. Urent. vel Hederæ terrest.* to these may be likewise added, for the farther lubricating of the Parts, and rendering the Discharge as well as Respiration easy, a little *Ol. Amygd. d.* or the *Ol. Lini*, or where there is Danger of a fresh Eruption, the same may be form'd into a *Linctus*, with the *Pulv. Amili*, and a little of the *Conf. Rosar.*

If the Wound were in the *Stomach*, so soon as the Mouth of the Bleeding-Vessel is clos'd, for dissolving the Grume already coagulate, a Draught of *Oxycrate* may be convenient, or the Julap above directed, with a little *Acetum* added thereunto, may be exhibited, four or five Spoonfuls at a Time; after which you are to direct the *Pulvis rad. Rhei* to ℥j. or 3℥. gently to move the same downwards by stool, taking special Care to avoid whatever may occasion Vomiting, for fear thereby the Vessel should burst forth afresh.

For the same Purpose of dissolving the congeal'd Blood, are also directed the *Antimon. Diaphoret. Ocul. Canc. Mumia, Rubia Tinct.* with some others, which we have noticed in a former Treatise where we speak of *Contusions*.

During this you must take Care, that the wounded Man's Diet, at these Times, be such as may refrigerate and incoarctate his Blood; his Drink, a *Tincture of Roses extracted in the Smith's Water with red Wine*, moderately acidulated first, and then adding a Bit of Loaf-sugar, or an Emulsion of the cold Seeds: His Food, Barley and Rice-Gruels, boiled up with a little Comfry Root; the Jellies of Hari's horn and Ivory; also Ising-glass, together with those of the Extremities of Animals; such, I mean, as the Neats, Calves and Sheeps

Feet, which by their lentous or viscous Particles, serve well at these Times to thicken the Blood, and retard its Motion or Fluxility.

I have been the longer upon this Symptom, as being a very common Attendant upon penetrating Wounds of the *Chest*: and where it kills not instantly by its vast Profusion, as in the Division of the great Vessels, lays the Beginning, sometimes for want of Care, of a *Phtisis*, or Consumption of the *Lungs*, by turning to an *Empyema*, and apostemating in the Cavity; or putrefying therein, induceth *Gangrene* and *Spbaccelation* of the Parts, more suddenly and certainly destroying the Patient.

The other Symptoms of *Fever*, *Syncope*, and *Convulsion*, are so entirely Consequents of the Inflammation of the *nervous* and *membranous* Parts hurt, as to require nothing more peculiar than what is levell'd at the same, and to take off the *Tension* thereof; which being effected, these Accidents or Attendants vanish usually of themselves: But where this continues, and cannot be remov'd, either by Bleeding, or any other Derivation or Revulsion of the offending Humour, the *Orgasm* of the Spirits still increasing with the Irritation of the *nervous Fibrillæ*, no Wonder the whole *System* is drawn into Consent, and an universal *Spasm*, as it were, subverts or unhinges the animal Fabric. But to proceed;

Whilst the Physician is thus endeavouring the Patient's Relief, the Surgeon must be careful to keep open the Wound, if he finds the outward Orifice thereof is likely to be of any Service to him, in discharging any Blood or Matter, till the Symptoms go off, and that the same will no longer flow out thereat, lest otherwise effus'd, as

we observ'd but now, they raise an *Abscess*, which may after turn to an incurable *Fistula*.

For preventing which, at the Times of dressing, he must incline his Body to such a Posture, as that the said Blood or Matter, if possible, may be emptied thereby; in which he must also be laid in his Bed, at least sometimes, if practicable, and that he can lie without Pain.

But if the Wound be only a small *Puncture*, far above, or otherwise remote from the Parts hurt, and by which an *Exit* cannot be obtain'd for any Humour extravasate, it will be to little Purpose to cram in Tents into such a Wound, or to create farther Uneasiness to your Patient by so doing.

At such Times, it is propos'd by some Authors, *Cautions about Injections.* that you should throw in certain *vulnerable Dejections*, or other Liquors, by way of *Injection*, into the Wound by a *Syringe*, either to *digest*, *mundify*, or heal inwardly; but this is a Practice, I think, too hazardous, unless you can be sure of a Passage out again for such Liquors, which is oftentimes very uncertain, and has been the Ruin, I am satisfied, of many Patients, especially when instead of the *Canula*, where the same is wanted, and may be admitted, *Tents* have been cram'd in to choak up the same, together with the Matter that ought to have a free Vent, if possible by the Orifice of the Wound. Wherefore, passing them by, I should rather advise you to commit the whole to *Nature*, assisted by the Efficacy of one or other of the foremention'd internal Prescriptions, as there shall be Occasion; and where the outward Orifice is like to be of Service to keep it open, not by cramming in of hard Tents, and choaking in the Matter, but

when it is like to be a Work of Time, by fitting the Passage with a handsome *Canula*, or Pipe of Silver, by which some Parts at least of the Humour may drain off, whilst others being rais'd in *Expectoration*, carried downwards by gentle *Purgation*, or finally absorb'd by the Vessels, and conveyed to the *Kidneys*, sent forth by Urine, which has been incontestably the good Hap of some, this Way escaping the most imminent Danger; in a Word, when in Opposition to your best endeavours a *Fistula* does ensue, you must either continue your *Canula*, or turn the Ulcer into a *Fontanel*; whilst in the mean Time you try to temper and soften the Blood, or to extinguish the *hectical* Flame usually at these Times inkindling therein, with a medicated *Aq. Calcis*, a *Sarsa* or *China Decoction* with Milk, *Ass's Milk*, and other the usual Methods for *hectical* Patients, which these in a short Time become; or as customarily prescrib'd for a *pulmonary, symptomatic Phtisis*, to which in like manner they are subjected.

These, I think, are the most material Directions to be given in Regard to the Wounds of the *Thorax*, unless you except this farther Remark, that in those penetrating quite through, we are caution'd not to keep both the Orifices open at the same Time, for fear of choaking the Patient: For hereby the *Lungs* would be compress'd, and the natural Construction and Dilatation of the Cavity impeded, to the Hindrance of Respiration.

HIST.
lxxviii.

A couple of *Sbarpers* frequenting a *Billiard-Table* in *Morefields*, abusing a young Gentleman at Play, upon some ill Language given, a Quarrel arose, and one of them drew his Sword; upon which the Gentleman drew also in his Defence,

fence, and before they could be parted, at the second Thrust, putting by the first he receiv'd a Wound by his Adversary's Sword, entring in on the Outside of the *Papilla*, and coming out behind at the *Scapula*.

I being sent for, found him somewhat *anbe-lous* and spitting, or rather hawking up a spumous florid Blood, though in no great Quantity, and much heartier, than could reasonably have been expected in so seemingly desperate a Wound: When the Assailant was secur'd, and I had taken away near twelve Ounces of Blood from my Patient's Arm, in the way of Derivation, and abating the Plenitude of the Vessels, which therewith abounded, I went along with him to his Lodging near adjoining; where, upon examining thereof more strictly, I perceiv'd the Thrust was made by a narrow Rapier, which, though passing through, had made an Orifice on the *pectoral Muscle*, scarce half an Inch in Breadth, that behind little differing from the Puncture of a Lancet; and from whence finding no Benefit like to ensue, by forcing open the Orifice, I dress'd only with a small Pledget of Liniment, and an Emplaster over it, as a Matter of little or no Moment to our Advantage in the Cure; but into that upon the Breast, I pass'd a Tent dipt into the same made warm, and put him to Bed: When Mr. *Bernard* came, who had been sent to first, who enquiring into the Circumstances, approv'd what had been done.

The next Day, a Physician was call'd, on whose Prescription lay indeed the main Stress; and by whose Order a *Linctus* was prepar'd *ex Syrupo de Sympbito de Rosis siccis Urticar. Urentium, cum Pulv. Gum. Arab. & Tragacanth*, also a *pectoral traumatic Decoct. ex Rad. Sympbit. Fol. Plantag.*

Plantag. Sanicul. Bugul. cum Herbis capillaribus ac Fol. Tussilag. in Aq. Hordei coctis, cujus Colaturæ ℥ij. ʒj. Syrupi Bals. Tolut. fuerit addita, in order to thicken the Blood and consolidate the wounded Lungs by their agglutinative Property; besides which, he took a Bole Night and Morning, *ex Sperm. Ceti. ʒj. Bals. Lucatel. ʒß. cum Pulvere Rad. Rhei ʒß. & q. s. Syr. Viol. ut f. Bolus*; drinking thereupon a Draught of his Wound-drink, that during the Use of the former incrassating Remedies, no *Grumes* might be shut up in the *Bronchiæ*, nor his Expectoration prevented of what was necessary to be that way discharg'd: And farthermore for his Cough, another *Linctus* was prescrib'd, to lubricate the same Parts, moderate at least the Irritation upon the Winde-pipe, and hinder the fresh Rupture of the Vessel, thus;

℞ Ol. Amyg'd. d. ʒiß. Syr. Bals. Tolut. Papav. Rhæados ana ʒß. Syr. de Meconio ʒj. Sacch. cand. alb. Pulv. q. s. m. f. Eclegma, de quo capiat Cochleare mediocre Tussi magis molestante, & superbibat Haustulum tepidiusculum Aposematis traumatici prius præscripti.

Lastly, to contemperate the Heat of his Blood, increas'd by the *symptomatic* Fever, he drank between whiles an Emulsion of Almonds and white Poppy Seeds, in a Pint of which was dissolv'd a Dram of *Sal. Nitri* with half an Ounce of white Sugar-Candy.

When I had dress'd him for a few Days, the Wound behind being clos'd up, that likewise on the Pap making no Discharge either of Blood or Matter, more than the common Digestion from the Wound on the outward Parts; considering

dering its Situation, and the small Prospect of any Benefit thereby, we concluded upon shortning of the Tent, and suffering it to heal up, committing the whole of the Solution internally in the Lungs to *Nature* and the Physician, with this joint *Prognostic*, that if an *Empyema* did not ensue, or an *Abscess* form'd in the Cavity; yet if the Wound in the Lungs should not admit of healing, but the *Hæmoptoe* still continue, there must ensue necessarily a *putrid hectic Fever*, and a *Phtisis* must be the Conclusion: To obviate which, so far as possible, at our last Consultation, it was agreed to put him upon the *Ass's Milk*, with which in Regard of his Cough, and still bringing up Blood thereby, he took a Morfel of the following *Electuary* by the Physician's Direction.

℞ Conf. Rosar. rub. ʒj. Sem. Papav. alb. Pulv. ʒij. Coral. rub. Gum. Arabic. ana ʒj. Ter. Japon. pp. ʒss. Syr. de Sympbito q. s. m. f. Elect. de quo capiat ad Magnitud. N. M. maj. summo Mane & quinta Pom. superbibendo ℥ss. Lact. Asinini recent. mulcti.

Yet notwithstanding this Method was prosecuted several Days with some Advantage, his Bleeding lessening thereby, his Respiration free, his feverish Heat repress'd, and his Strength much recruited; after about a Fortnight's Discontinuance of the *Regimen*, eating Meat as usual, and taking a Glass of Wine, upon every light Fit of Coughing his Bleeding would return as he thought, tho' rather the latter produced the former; his Fever also appear'd with Flushing in his Cheeks, a *Paroxysm* each Afternoon, and *colliquative* Sweats in the Morning; upon

upon which our *Prognostic* being like to be verified, Dr. *Tyson* was call'd in, and thought proper to take away more Blood, and to try the *Cortex* in the manner following.

℞ *Pulv. Cort. Peruv.* ℥ij. *Syr. de Meconio* q. s. m. f. *Bolus sumendus* & repetendus quarta quaque hora in intervallis *Paroxysmi*, superbibendo *Cochl. quatuor Julapii* seq. *cujus totidem capiat in languoribus præcipue Mane Sudoribus obrutus, tempore usus Vitrum agitando.*

℞ *Aq. Lact. Alex. Ceras. nig. ana* ℥iv. *Cinnamom. Hord.* ℥ij. *Pæon. comp.* ℥j. *Margarit. pp. Coral. rub. pp. ana* ℥ij. *Sacchar. Crystal. q. s. m. Julapium.*

For his Cough he had the following *Linctus*, of which he took a Spoonful between whiles, as the same was troublesome.

℞ *Syr. de Symphyto, Syr. Bals. Tolut. Syr. de Meconio ana* ℥j. *Troch. Gordon. pp.* ℥i℥. m. *instar. Linctus.*

By that Time he had thus taken six Drams of the *Bark*, he miss'd his Fever-Fit, his Sweats were moderated, and his Bleeding entirely disappear'd; so that now taking a Dose only Night and Morning for a Fortnight longer, he grew daily stronger, beginning to recover his former sanguine Complexion, and going into the Air, prosecuted his former Method of the *Ass's Milk*, and a Milk-Diet in general, returning after six Weeks Time, as hearty and well-flesh'd as before.

Whence

Whence, by the way, I desire it may be remark'd, as has been for some Time past, by our best Physicians here in *London*, that in all *Hæmorrhages* whatever, accompanied with a feverish Effervescence stirr'd up in the Blood, especially attended with *Exacerbation* and *Remission*, and more especially *Intermission*, whether by the *Nose* in a *Stillicidium*, the Lungs by *Sputation*, or *Expectoration* in Coughing, from the *Stomach* by *Vomiting*, the *Uterus* in a *Profluvium*, *vel major quam par sit Catameniorum Fluxus*; from the *Anus*, by an immoderate *hæmorrhoidal* Discharge of this Treasure of Life, the Blood; you will find no Remedy so powerful as the *Cortex Peruvianus*, which not only as an *Ischæma* or common Blood-Stancher, from a mere *Stypticity* constringes the Mouths of the bleeding Vessels, but by a peculiar specific Property, extinguisheth the febrile Ferment, and invigorates the Tone of the Blood, removing the Cause of the Disease and preventing a Relapse: Whilst the other Tribe of *agglutinating*, *emplastic* and *restrictive* Medicines, palliate only for a Time, by shutting up the Mouths of the Vessels, but have no Influence upon the Cause of many of these fatal *Hæmorrhages*, the feverish Ferment, the Thinness of the Blood, or other *Dyscrasy* of the Juices thereof.

Of Wounds of the *Abdomen* or lower Belly, Of
 a Regard of their *diagnostic* or *prognostic* Signs, Wounds
 we shall need to say nothing more than what we of the
 have already deliver'd, in discoursing of those of Belly.
 the Breast just before, between which there is
 also, I think, this Difference, even in those of
 the containing Parts, that these latter, *viz.* of
 the Breast, affecting only the external Parts, are
 not altogether so subject to the Accidents of
 Pain

Pain and Inflammation as the Wounds of the Belly; which, by Reason of the *Aponeurosis* or tendinous Expansion of the *oblique* and *transverse Muscles*, as also of the Nature and Office of the *Peritonæum* under them, are very liable to both; as also their Union much retarded by the incessant Motion of the *Diaphragm* in Respiration, as well as at some Times in the Extrusion of the intestinal *Fæces*, wherein these Parts are much concern'd; which makes me wonder, that our learned *Lecturer* Dr. *Read* should intimate that these Wounds not penetrating, are cured without any Difficulty, as Wounds in other fleshy Parts of the Body; it being certain, that we find them oftentimes attended with unhappy Accidents, which retard their Cure.

To obviate which, having stitched up the Wound, if the same were any thing large and deep, as the Patient lies along in his Bed, let him be there confin'd, contrary to what he needs be some Times, if the Wound were higher up on the Breast, and an exact *Regimen* of the other *Non-naturals* duly observ'd: Above all, let his Bowels be kept empty with *emollient Clysters*, if subject to *Costiveness*, or with some *Carminatives* intermix'd, when oppress'd by *Flatus*, that he may not be under Necessity of straining to go to Stool, or pained by the great Tension of the Parts underneath, occasioned by Wind pent up therein.

Bleeding and *Anodynes* are here also convenient to keep under the Inflammation, divert the Fluxion, and promote Quiet, above all Things desirable at such Times, together with some lubricating *oily Draughts*, *pectoral Linctus's* and *Apozems*, if subject more particularly to a Cough, that

that dreaded Symptom under these Misfortunes, and known Obstacle to the Cure.

The Wound, as we observ'd, stitch'd up may be dress'd with *Arcæus's* Liniment, with a small Addition of the *Ol. Hyperic. vel Lumbric.* especially in hot, dry, and thin Habits of Body laying a Defensative over the Pledget, whilst the Belly round about is embrocated with the same Oils, or the following Mixture, which I prefer.

R. *Ol. Amygd. d. 3j. Sperm Ceti 3ij. Ol. Lumbric. 3ß. Ol. Anis. Chym. 3j. m. pro Litu ad par-
tus vulneratas circumcirca.*

Likewise at the Times of Dressing, three or four warm Stupes express'd from the hot Decoction of the *Fol. Malvæ Verbasci Hyperici Centauri cum Flor. Chamæmel. Sambuci, Meliloti*, made in Spring-water, with the Addition of a little Brandy at the Time of using: And when you dress up, let him be gently swathed round about his Body, not only for the Security of the Dressings in turning about, but for a Support to the Parts, and preventing their Shock at the Time of Coughing; taking Care however it be not so strait as to create Pain or Uneasiness thereby, keeping your Patient thus confin'd to his Bed till the Agglutination is confirm'd; and in case the Stitches break through, or by Reason of the attending Inflammation, are forc'd to be divided, till the Wound is incarn'd and perfectly skinn'd over; lest otherwise permitting him to rise and walk about, the Bowels in the erect, or sitting Posture, bearing against the *Peritonæum*, new Accidents arise, and fresh Disturbance to the Protraction of the Cure.

In

*Gastro-
rhapsia.*

In *Wounds* of this *Region* penetrating the *Cavity*, where they happen to be so large as to let through the contain'd Parts, you are immediately, with a warm Cloth moistened in Wine, to replace them: But if the *Omentum* or *Caul*, usually appearing first, where the Wound especially happens above the Navel, has, by being long exposed, contracted any Taint from the Air, to which by its Contexture it is more prone than the other Parts; and according to *Hippocrates*, *Si Omentum exciderit, necesse est putrescere*, what you find corrupt is to be cut off, making Ligature above, to secure any Effusion of Blood, however small; and then replacing the Remainder with what other Part of the *Viscera* is fallen out, when you are to make the particular *Suture* we formerly observed, as peculiar to these Parts, and thence denominated *Gastrorhapsia*; wherein you first, with a crooked Needle well armed with a strong waxed Thread, take hold of all the outward Teguments, but leaving the *Peritonæum* yet untouched, then on the Side opposite from within outwards, you take up the *Peritonæum*, together with the Muscles and Skin; after this, at proper Distance, somewhat short of an Inch, you pass your Needle through from the outside on the same you last perforated, and quit the *Peritonæum*; when opposite from within outwards, you take it up again; so proceeding according to the Length of the Wound, leaving it on one Side, and taking it on the contrary, which is intended for the firmer agglutinating this Part with the Muscles, and thereby obviating a *Prolapsus* of the Bowels, which might otherwise happen, and *Herniæ* ensue upon these Accidents.

There

There is another way of practising this *Suture* in the continued Stitch, perform'd by two Needles arm'd with the same Thread, but, I think, the former less troublesome, and full as safe, if not more free from Accidents.

The Wound thus secured by your *Suture*, you are to proceed after the manner before directed, with the warm *Liniment* for your Digestive: And if in those of the outward Teguments in this Part, we thought it necessary that the Patient should be confin'd to his Bed, during the whole Time of his Cure, we must surely think it is much more so now, even absolutely to be commanded, in as much as the Bowels have here no Fence, all the containing Parts being divided.

But farther, when together herewith the contain'd are likewise hurt or wounded, as the *Stomach*, *Liver*, *Spleen*, *Kidneys*, *Intestines*, &c. the Case is often desperate and fatal: Although sometimes, as we have remark'd in the general *Prognostics*, and shall farther presently, many, which have been so deem'd, have been recover'd; however, all that the Surgeon can do, I think, at these Times, is, if the Wound be small, as by a Rapier or Pen-knife, to dress up with a soft Tent dipt in the Digestive as before, and fasten'd with a Thread, to prevent its slipping into the Cavity of the Belly, as we directed in the penetrating Wounds of that above: In keeping open which, the like *Cautions* are here requisite, as were there directed; *about the Use of Tents.* in particular, that if you can propose any Advantage by draining off the extravasated Blood or Matter, the same is to be continued for such Use: But if so situate or so small, that no Benefit is like to accrue thereby to your Patient, you must not excite farther or fresh Disturbance

by the forcing in of unnecessary Tents, but content yourself in dressing only the outward Orifice with a Pledget of your Digestive, leaving the rest to Nature and the Physician, whose Province it is now to attend and encounter the Symptoms, regarding the vital Indications, and prescribing proper *Cordials to support the languishing Spirits: Whilst at the same Time he directs also such agglutinating, balsamit and traumatic, or vulnerary Potions, or other Forms of Remedies of like Nature, as may contribute to the consolidating or cementing the wounded Parts: Anodynes and Narcotics, where there is a Call for them, to blunt the Pain, and promote Rest; carminative and emollient Clysters when needful, to correct Wind, and empty the Bowels; with whatever else may conduce to the Recovery of the wounded Person, as we have at large observed in our last Section, concerning Wounds in general.*

Farther, if the Wound is so situate and large withal, as that the keeping it open is like to be of Service for the Discharge, you must then, as we observ'd but now, let a soft Tent be introduced dipt in the warm Digestive, continuing the same till the Matter ceaseth to flow out, these Parts not suffering the *Cannula*, as those of the *Breast*; nor will the Practice by *Injections* succeed better than they do there, at least in my Opinion.

Whatever *Viscera* are hurt within, the *chirurgical Indications* are much the same, that is, to promote Digestion of the Wound, and procure all he can an *Exitus* thereby, for any Blood or Matter lodging in the Cavity, and otherwise like to putrify therein: But the internal *Regimen* must be varied according to the Indications, and the diverse attending Symptoms, the Principal of which

which we have already taken Notice of, and therefore shall take leave of these Wounds of the *Venters*, having spoken two or three Words of those of the thicker Guts, in which the Patient stands a better Chance for an Escape (though here also the Odds are much against him) than in the smaller and thinner.

In the former then, where the Wound is large enough to require it, you may make your *Suture* where you can come at the wounded *Intestine*, but which differs from the rest, as we took Notice in our last, under the Name of the *Skinner's* or the *Glover's* Stitch there describ'd; yet I am inclinable to believe this multiplied Perforation of these however more carnous Parts of the *alimentary Duct*, which may be here more properly term'd *excremental*, are liable to more Danger of *Inflammation* if not *Gangrene* and *Convulsion*, than the *Suture interrupted*; which being made somewhat nearer each Stitch to the other, may answer, doubtless, the same Intention of uniting the Division, the Threads after fastening, being left hanging out of the Wound, together with those which belong to the outer *Teguments*, when after Agglutination, by means of some *sarcotic* Powders sprinkled thereon, or a Feather dipt in the warm *Balsam of Turpentine*, and lightly smear'd over, they cast off together with the rest, or lying loose, are gently, without the least Force, to be drawn out with the *Forceps*.

In these Wounds, I mean of the *Intestines*, as well as those of the *Ventricle* or Stomach, it must be own'd we have this Advantage, that the *vulnerable* Medicaments can more directly and readily come to the griev'd Part, in the latter the *Wound Drinks* and *Potions* taken in by the Mouth, falling immediately upon the same: So

likewise in the former, *terebintbinate Clysters* and *vulnery Decoctions* may be easily injected, with more Energy and less Delay, communicating their salutiferous Qualities, than when conveyed the round-about way of the Circulation.

HIST.
lxxix.

Captain H——y of the *Guards*, having been drinking hard with Mr. P——r the *Surgeon*, coming over *Moorfields*, they drew and push'd at each other in the Dark, where the Captain in the Rencounter had the Misfortune to be prick'd in the Belly, upon which, reeling on one Side, he was supported by some others in their Company, Mr. P——r making his Escape, and brought into the *Magpie-Tavern*, next Door to my Habitation, at that Time without *Bishopsgate*, where I found him faltering as well in his Limbs as his Speech; but his Companions telling me he had been drinking, and was full of Wine, I entertain'd the more Hopes, till coming nearer, and finding his Pulse scarce perceptible, with cold, clammy, and, as it were, *agonistical Sweats*, with constant *Singultus*, I was almost ready to pronounce his Wound *mortal*, before I had seen it, had I not often pondered that Saying of *Hippocrates*, *Acutorum Morborum, non omnino tutæ sunt Prædictiones, neque Mortis, neque Sanitatis*; which now examining, I perceiv'd an oblique Puncture about a Hand's Breadth from the Navel, somewhat Sideways, just below the bastard Ribs, slanting into the Cavity of the Belly, into which when I had fitted a Tent dipt in the warm Liniment, I introduced the same about an Inch, first securing its Extraction by a Thread fasten'd thereunto, with a Plaister and soft Bolster over, and gentle Swathing round his Body to retain them: Then putting him into a warm Bed, I directed only the following *Lincus* for the present, to be taken

taken by Spoonfuls, desiring if he surviv'd that Night (it being then late) we might have a Consultation early the next Morning.

R^o Ol. Amygd. d. ʒiʒ. Syr. Dialth. Capil. Ven.
ana ʒʒ. Sperm. Ceti exquisitè mixti ʒj. f. Linc-
tus.

I would willingly have drawn off some Blood, but found him indeed so languid, as to be incapable of such Evacuation.

By nine of the Clock next Day, I had a Message brought me by his Friends, that Serjeant Bernard and Dr. Blackburn would be with me at Ten, at which Time accordingly they came, and entring the Patient's Chamber, found him under a *Paraphrenitis*, talking incoherently with his *Singultus* between whiles: However, his Pulse was so rais'd, that we agreed immediately to draw away twelve Ounces of Blood from his Arm, to lessen the *Tension* and *Inflammation* of the Membranes: Then taking a Survey of the Wound, Mr. Bernard observing by the Extraction of the Tent, which way the Sword had entred, contented himself, without making any Probation of these very sensible nervous Parts, by which no Advantage could accrue to the Patient, but hazard of Convulsion through the Irritation thereof; so that having again dress'd up as before, we gave our Opinion, that these direful Symptoms were owing to the nervous Part of the *Diaphragm* being wounded. Afterwards retiring to consult what was farther to be done in a Case so likely to prove fatal, we both readily agreed to the Physician's Proposal of throwing up a *terebinthinate* Clyster in the Form following.

℞ *Decoct. emollient. pro Clyst.* ℥x. *Ol. Lini*
rec. ℥iv. *Terebinth. Venet, cum Ovi Vitel. Solut.*
 ℥β. m. f. *Enema quamprimum injiciendum, & re-*
jecto illo, capiat Haustulum sequentem Oleosum ano-
dinum.

℞ *Ol. Amygd. d.* ℥iβ. *Syr. de Meconio* ℥vi. m.

By the former he rationally propos'd to empty the Bowels, as well of the *Intestinal Fæces*, as any imprisoned *Flatus*, dilaniating or twitching the *nervous Fibrillæ*: Likewise by its kindly Warmth and balsamic Particles, to comfort, like a *Fetus*, the Parts of the lower Belly, at least within the Reach thereof: By the latter, to lubricify and relax the same, by which their Crispature from the Tension and Inflammation might be also remov'd, and the Outrage of the Spirits demulced or asswag'd from the Oil thus assisted with the *anodyne* Syrup; which Point, if we could gain, there would be Grounds to hope at least, that the *Singultus* and *Delirium* also, as a Consequence of the Irritation, and inordinate Motion of the Spirits, would quickly cease.

As a farther Help, he directed the following *Bolus* to be got down whole, or dissolv'd, once in six Hours, with three or four Spoonfuls of the cordial Julap, in order to moderate and blunt the Force of his *Cough*, which made him cry out dismally; the *Linctus* I had before order'd was repeated, only adding *Syr. de Meconio & Papav. rhæad.* in the room of the *Dialth. & Capil. Ven.* after a Spoonful or two of which, as the same prov'd troublesome, he drank a warm Draught of the *pectoral Apozem*, here described with the rest.

℞ *Pulv.*

℞ *Pulv. e Chel. Chanc. C. Sperm. Ceti ana* ℥j. *Ol. Anis. gut. ii. Syr. Capil. Ven. q. s. m. f. Bolus.*

℞ *Aq. Cerat. nigr. Aq. Flor. Chamæm. ana* ℥iv. *Aq. Theriacal. ℥ij. Pæon. G. ℥j. Syr. Pæon. G. ℥vi. m. f. Julap.*

℞ *Decoct. Pect. depurat. Hiß. Tinct. Croci Aq. Theriacal. extr. Syr. Bals. Tolut. ana* ℥i. *m. f. Apozema.*

Having thus provided what his case requir'd, and given Orders to his Nurse for his other *Regimen*, we took leave with this *Prognostic* delivered to his Relations, that his Life was in the most imminent Danger, and that we could scarce expect to find him alive next Day: Yet notwithstanding, upon the Discharge of his Clyster with a plentiful Stool, he came a little to himself, complaining still of great Pain of his Belly, with his *Hickup*, though not so frequent as it had been, but his *Cough* was insupportable; so that in the Evening, visiting by myself, in order to appease the same, besides his *Linētus* and *pectoral Apozem*, I gave Direction for his oily Draught to be repeated with an Ounce of the *Syr. de Meconio*, which put him upon Slumbering. Very early the next Morning I went up to him, and understood he had slept, but unquietly, still groaning and starting with a *spasmodic* or convulsive Kind of Respiration, his Pulse was now again depress'd, and his cold Sweats upon his Face: He complain'd very much of the great Soreness of his Belly, which he could scarce suffer to be touch'd, and which upon touching, felt exceeding tense. I then sent presently to the Apothe-

cary for the following *Liniment*, which, with my warm Hand, I bathed gently in upon the whole *Abdomen*; and for the easier coming at the same after, instead of the Roller, which he could not suffer, placed the middle of a large fine Napkin under his Loins, and pinn'd over the two Ends before.

R. Ol. Amygd. d. Lumbric. ana. ʒj. Ol. Laterit. ʒʒ. Anisi chim. ʒj. m. pro Litu.

I then sent to acquaint my Assistants, both *Physician* and *Surgeon*, that the Captain was still alive, and desir'd to see them; when about Noon, after he had been embrocated, falling into a Sleep of near an Hour's Continuance, he wak'd easier, and was somewhat refresh'd; dressing of the Wound in their Presence, the Tent came out, but without any Appearance of *Digestion*, or any Humour flowing out therefrom; upon which it was agreed to shorten, as well as lessen it, that it might pass without any Disturbance, there being no likelihood of Service therefrom.

We found him well compos'd in his Head, his Breathing easier and less interrupted by his *Singultus*, his *Cough* also moderated, his Pulse returning, with high Colour in his Face; whereupon, for his farther Relief, it was in this Consultation agreed to take away ten Ounces more of Blood, which he bore well, and seem'd easy thereby, even before I had loosen'd the Ligature, his Pulse mending, and his Respiration still freer: After this the *Turpentine Clyster*, the *anodyne* oily Draught, and the other *Regimen*, were ordered to be repeated.

The third Day we met again, when we began to entertain some Hope of his Recovery; the Wound appearing well digested, and the Symptoms of *Hickup*, *Cough*, and *Tension* also of the Parts, abated; insomuch, that the Day following, finding him still in better Condition, Mr. *Bernard* took his Leave, but the Doctor attended a Week longer, keeping him to his lubricating Method of the oily Draughts, with half the Quantity of *Syr. de Meconio*, the *Sperma Ceti Bolus's*, with his *Linctus* and *pectoral Decoction*; about which Time the Wound was just heal'd up, unless the outward Orifice; whereupon, leaving off the Tent, I placed only a Pledget with the *Digestive*, and a Plaister to secure it. The Patient finding himself perfectly easy, and, as he apprehended, now free from Danger, got out of Bed, and sitting up, was prevailed on by some other Officers who came to visit him, to drink two or three Glasses of Wine, whence he grew restless again in the Night, and relaps'd into his convulsive Breathing, his Fever likewise returning.

Being call'd up to him, and examining his Pulse, I immediately took off twelve Ounces of Blood more, and order'd his *anodyne* oily Draught to be presently given him, which in an Hour's Time so compos'd him, his Bleeding taking off the Inflammation, that the Day following the Doctor coming again to visit him, found him with little or no Complaint; however, having been two Days without a Stool, the common emollient Decoction, with an Ounce of *Mel. Mercurial.* and as much of the *Syr. Viol.* was thrown up as a Clyster, and an oily Draught to be taken every Night for three or four Days; when advising him to an exact *Regimen*, and a steady Perseverance

verance with his Gruels, Chicken-Broths, and Panada's, abstaining from Wine, Flesh, and Malt-Drink, and rising only to have his Bed made for at least three or four Days, if not a Week longer for his Security, he also took his Leave, as I did few Days after; his Wound being closed up, and himself in this manner escaping the exceeding great Danger of his Life.

Thus having dispatched the Wounds of the Head and Face, as also those of the Neck, as well as Thorax and Abdomen, it remains for us to take Notice of those of the Limbs, to which belong also the Joints, Ligaments, and Tendons.

Wounds of the Limbs. The Limbs, which are chiefly composed of the Muscles, are liable oftentimes to Accidents of this Kind, which, if happening clear of the Joints, and the fleshy Parts only affected, the Hurts are much less formidable, since if they heal not by the first Intention, Nature is seldom wanting in furnishing Materials for the regenerating new Flesh, that the Breach may be made up by the second.

Besides, we have here a very considerable Advantage, I mean that of Compress and Bandage, by which alone, or with an outside Dressing well managed, and the Aid of a balsamic Blood, we often find the Thrusts of a Rapier quite through the Limb, intirely united in forty eight Hours Time, and in larger of the same Part, that happen *secundum Longitudinem*. Nature and the Bandage, with a superficial Pledget dipt in a good *vulnerary Balsam*, very frequently perform the Work; but in *transverse* Wounds, where large Bundles of the *muscular Fibres* are cut in sunder, the same from their native Tensity, will withdraw themselves at each End, their tonic or oscillatory

tillatory Motion now ceasing, by which Retraction the Wound necessarily gapes wide open, so that the *Suture* will be here wanted to bring their divided Parts nearer together: And where these fail, as they are apt to do, by Reason of the Convulsion of the other Fibres, the Inter-space is diligently to be incarn'd, as we have before observ'd; for promoting which, the *Hæmorrhage* restrain'd, the same *Digestives* and *Agglutinatives* are required, as for the Wounds of the other Parts, I mean the *Terebinth. cum Ovi Vitello*, *Linimentum Arcaei cum Ol. Hyperic.* or melted down with a little *Basilicon*, which tho' forbidden to the *nervous* Parts, in *Flesh Wounds* is now very allowable; for agglutinating there is nothing preferable to the *Bals. Tereb.* with a little of the same *Liniment*; and in the Management of these Wounds, where you have any Hopes of their *Symphisis*, or uniting of their Lips, having made your *Suture*, and with a Feather, dropt a little of the melted Medicine between them, you are to lay over a Pledget of suitable Bigness, arm'd with your *Liniment*, and your Plaister to secure it, with Compress also fitted, when you must carefully roll up the Limb, beginning always from below upwards, equally and gently compressing as you go on; upon the Wound you are somewhat to be guided by the Complaint of your Patient, which, if great, you must moderate, or slack your Hand; if little or none, you may proceed as you began, so straitning as gently to press forth any Blood or Matter lodg'd on the Inside, or between the Lips thereof, which being past, you bear something tighter, to intercept or keep off the Fluxion, but by no Means so as may excite Pain, or thereby occasion any Disturbance.

When

When you have done this, you must consult the best Position of the Limb; if the Leg, it must be kept straight, lying on a Pillow upon a Chair or Stool, or which may be found expedient, in the Bed; if the *Arm*, let it be supported by a Scarf or Napkin pinn'd up to the Shoulder, lest otherwise the Flexion of the one, or Extention of the other, should endanger the breaking through of the Stitches, and tearing open the Wound.

But where the same happens to be Lengthways of the Arm, he may keep it, as he lies along in his Bed, straight out by the Side of his Body, which will be found preferable to the bending of the Joint.

When the Stitches tear their way out, you must then lay in soft Dofils dip'd in your warm *Digestive* between the gaping Lips, and after *de-terging*, *incarn* and *cicatrise*, as we have formerly, and shall hereafter direct in our next *Section* of *Ulcers*.

In Wounds which penetrate quite through the *Limb*, without injuring the *Blood-Vessels* or *Tendons*, you may lay a Pledget arm'd with your *Digestive*, especially finding the wounded Person easy, upon each Orifice, and attempt the Union by Compress and suitable Bandage: But if thro' Pain or Fluxion arising, you are not like to accomplish the Work after this manner, you are to introduce a proportionate Tent thereinto, dipt first in the warm *Digestive*, with a Pledget thereon, and having embrocated the Limb round about with the *Ol. Rosar. Lumbric.* or in case of Inflammation, the *Ol. vel Unguent. Sambucin.* roll up more gently, as your Patient can suffer it; when having let him Blood on the contrary Side, and kept him to a strict *Regimen* in his Diet and other

other *Non-naturals*; if by thus proceeding for a few Days, the Wounds appear digested, and the Symptoms remit, you must then gradually shorten your Tents, and make your *Compression* and *Dilation* somewhat straiter, for the more convenient Discharge of the Matter lodg'd therein, and preventing *Sinuosity*.

And here as to the Use of *Tents*, I think it necessary the young Surgeon should be informed, that where the Cavity or *Sinus* is capable of exact *Compress*, and may that way be united; or if not, provided the same lies safe, not deep, but superficial, and can without any Danger be dilated, there is little Need of any: So where Necessity calls for them, as in some of those penetrating the *Breast* or *Belly*, as also in these perforating Wounds of the *Limbs* they frequently are required, he is by no means to distend the Wound therewith, nor yet make them so long, even in the common Punctures not perforating, as to reach the Extent of the Cavity; for that were to choak in the Blood or Matter, stir up Pain and Fluxion, and raise an *Inflammation*, if not an *Abscess* or *Apostemation*. For Instance, should the Instrument have entred three or four Inches, his Tent is scarce to exceed one, especially if any *nervous* or *tendinous* Parts lie in the way, which being dip'd in the warm Liniment, as we have already directed, is gently to be introduc'd, and there retain'd; and as the Matter begins to decrease, the Pain likewise and other Symptoms remitting, it must still be shorten'd, till at last it is made no longer than to keep open the outward Orifice; when after few Days this likewise is to be remov'd, and the Wound suffer'd to heal up.

But

But where the Instrument pass'd through the *Limb*, and it so happeneth that one Orifice is more depending than the other, being both dressed up, as directed, for a few Days, the chief Regard is afterwards to be had to this lower Orifice, keeping the same still open, as lying more convenient for the Discharge, whilst you permit the uppermost to shut up; the Practice of *Injections* in these Cases, I must own, I have little better Opinion of, than in the *Breast* or *Belly*, even that of the *grand Vulnerary* of our new *Æsculapius*, I have known retard a Cure of this Kind, but never to do the Service of a few Drops of the *Balm of Turpentine* instilled warm into the Wound.

HIST.
LXXX.

A Gunner belonging to the *Train*, in a Quarrel at *Woolwich* with some of his Companions received a Wound quite through his Arm with a Sword, entring at the *Biceps*, and glancing by the Bone, came out a Top at the *Deltoides*, from whence an impetuous Flux of Blood issuing forth the Surgeons there had thrust in Abundance of hard Tents and Dofils dipt in restraining and corrosive Powders, in order to restrain or choak up the same, with Compress in *Oxycrate*, sprinkled with *Bole*, and a strict Bandage over all whence by the Tightness thereof intercepting the Circulation, a large Tumour followed both above and below, with exceeding Pain, Fever and Inquietude: But being told by his Surgeon there was no Remedy but Patience, for if his Wound was opened in less than two or three Days, he would inevitably bleed to Death; the poor Man unable to bear longer this insupportable Torment, after the second Day came away unknown to his Surgeon, to a Relation here in Town, and in my Neighbourhood; where be

ing sent for, and slipping off his Clothes, after he had acquainted me with his Misfortune, I turn'd up his Shirt Sleeve, where I perceiv'd the whole Arm, above and below the Bandage (the middle thereof lying, as it were, buried therein) vesicated and beginning to gangrene, from the Straightness of the Ligature about the Wound; under the Folds of which it was very difficult to enter the Point of my Scissars to give Liberty, the Fastening outwardly being hid by the Gleet wetting through the same, but taking Time, I snipt them all through from the Bottom to the Top one after another, choosing this way rather than to unroll, by which in some Parts the Folds were stuck so close to each other, through the emplastic Matter they were dipt in, that the Limb must necessarily have been more disturbed and jarred thereby, than by this other Proceeding; for having now cleared the way through all the Folds of the Binding, I rais'd them gradually on each Side, till I had remov'd the whole together at once; then taking a View of the Wound, I found both Orifices excessively distended by the Dossils cram'd into the same; some of the outer ones in each being wet with Gleet flowing down from the Vesications, as well as that issuing out of the Wound itself, I perceiv'd would easily give way, and accordingly I drew out the same with my Forceps, being provided with Dressings by me in case of a new Eruption; then with a fine Hook out of my Tweezer-Case I rais'd several more, as I found they would come out without Force; till observing others about the middle of the Wound sticking fast therein, I forbore, lest the Vessel should burst out afresh.

After this, I snipt the several *Vesications*, and applied a Digestive over, when melting some *Liniment* in a Saucer with a little *Ol. Hyperici*, I dip'd in a soft Dosil, or rather of the Tent-fashion, fastened with a Piece of Thread, and gently introduc'd one into each Orifice, with a Pledge of the *Liniment* on the outside thereof; then embrocating the whole Limb from the Fingers Ends to the Shoulder, *cum Ol. Lumbric. & Rosar.* where the same was clear of the *Vesications*, I afterwards cover'd the upper Part of the Arm, from the lower Wound to the Top of the Shoulder, with a *Cataplasm* of the *Theriaca Lond.* and gently rolling it on, placed his Wrist upon a Pillow, supported as customary, by a Napkin pinned up to his Shoulder, directing a proper *Regimen*, and keeping him in his Bed, having first order'd a Clyster to cool and empty his Bowels with a gentle *Anodyne* for the Evening, after that had done its Office.

The Day following I found him easier, with the Tumour on the Hand somewhat asswag'd, though several fresh *Vesications* had arose above the Cubit, which I clip'd as before: The *Bandage* I observ'd wet through with a bloody *Serum*, which being remov'd, and the Dressings taken also away, I drew forth the Dosils by the Thread I had left out of the Wound the Day before, and perceiv'd the same yet crude, nothing but thin *Ichor* issuing forth thereat: When again inspecting the inside Orifice, the Lips of which for want of Digestion, through the Distention made by the first Application, were still as that above, gaping, open and turgid; I pass'd in my Hook to try if any more of the Dosils would rise easily therewith, but missing my Hold, made no farther Attempt, choosing rather to wait

the Digestion of the Wound in Expectation of Nature's Help that way, with more Ease and less Hazard to get rid of them, again dressing up as before.

The third Day Matters seem'd to take a better Turn, when in Company with Mr. *Blundel*, we perceiv'd not only the *Vesications*, but each Orifice of the Wound to shew an Appearance of Matter, a small Quantity issuing out of the lower Orifice on the inside *Biceps*; so that passing my Hook, I drew forth with Ease two more Dofils from below, and one from the Top, which by the Putrefaction they had contracted, stank like Carrion: I then pour'd in at the upper Wound some warm *Liniment* thin'd with the *Ol. Hyperic.* but finding none of it issuing out by the lower, I concluded there were more of these mischievous Plugs still left behind, which however I thought proper to overlook at this Time, for fear of some worse Accident, and to introduce a soft Tent of about an Inch in Length, dipt in the Digestive, at each Orifice; but not filling up the whole Capacity thereof, that the Matter might have Vent thereby, and the Patient by that Means be rendred also easier; then embrocating the Limb, and applying a fresh Digestive on the vesicated Parts, I left off the *Theriaca*, and roll'd gently on an easy Compress, as the Day before.

On the fourth Day, or the seventh from the Hurt receiv'd, I found the Inflammation and Tumour also much lessen'd, the Entrance of the Wound softer, and appearing with a kindlier Aspect; but being fearful of renewing the *Hæmorrhage*, I was shy in probing, and dress'd up this, and the Day following as I had done that before, when the Matter increasing, and pouring forth

in large Quantity, mixed with *Sanies*, I suspected an *Abscess* and large *Sinuosity*.

On the tenth, upon taking out my *Tents*, I pass'd a Wax-Candle from the upper Orifice, and at about two Inches met a Stop, and thence infer'd, we had more of the Surgeon's Pellets still behind: Upon withdrawing this, I pass'd down a Hook, belonging to my dissecting Knives, and guiding it easily to the Obstacle, when I was got upon it, turn'd it as gently, till finding it entangled, I leisurely, without any manner of Complaint (which I was guided by) drew up, but coming within Sight, my hold broke off; yet being thus far arriv'd, I had it within my Power, and entring in again, extracted a stinking Pellet or hard Dofil like the rest.

After this I pass'd down the Candle again, and met with farther Resistance about the mid-way, and the most dangerous Part of the Perforation on Account of the Artery, whence it seem'd the great Effusion must have sprung at first. I then fathom'd the lower Orifice, and met the same Impediment much about the like Distance; but being fearful of my Hook, the Wound now thoroughly digested, and the Fluxion going off, having gag'd this lower Orifice, I shap'd a Piece of very soft Gentian to the Dimensions of the Wound, and left it in all Night; whereby I found, as I expected, the whole Passage so dilat-ed, that extracting it next Morning, there issued forth three or four Spoonfuls of Matter; and putting up my searching Candle, I perceiv'd the extraneous Body was advanc'd the one half nearer to the Mouth of this lower Wound; upon which entring again my Candle at the upper Orifice, and gently pressing forward, two more of the same Pellets came into Sight, which I took out

with

with my small Hook; and having thus remov'd the Obstacle, or Hindrance to our Cure, the Bleeding-Vessel' being destroy'd by the caustic Powders for some Distance, or incarning before the Separation of the *Sloughs*, some of which were not yet cast off; I dress'd, as I had done formerly, with easy Tents dip'd in the warm Liniment, lessening that in the upper Orifice as of no Service, but keeping open that lower, whence large Quantity of *Matter* from the *Sinus's* among the Muscles daily proceeded: But by ordering Compresses well suited, and making a stricter Bandage, as my Patient could suffer, the same lessen'd as the Cavities united, which were mostly upwards, and the lower Orifice much favouring the Discharge; so that shortning my Tent here also, as the Matter ceas'd to flow, I at length laid on only a Pledget of the *Liniment*, and in little above a Month dismiss'd him cured.

I designedly wav'd the Use of a *Fomentation*, notwithstanding the *Gangrene*, for fear the Heat thereof might occasion a breaking forth of Blood from the wounded Vessel; besides the rise of this Symptom, however dangerous, being entirely owing to an outward Cause, the great Straightness of the *Bandage*, this being remov'd, we had less Occasion.

The stopping of this Flux of Blood was indisputably necessary for the Preservation of the Patient's Life; but the doing it this way, by thrusting in of such great Numbers of Dofils, or rather Globules of Lint, without making any Provision for taking them out again, or coming at them, was, I think, both dangerous and injudicious (a more fatal Consequence of which Practice I shall observe to you presently, as I had it communicated by Mr. *Bernard*) and the Con-

tinuance of so strict a *Ligature* made by a narrow Filleting, to the Time appointed, had inevitably cost the Loss of his Limb, if it had been that way possible (which yet was unlikely, all things consider'd) he could have compounded for his Life. A couple of hard Tents, of Size proportionate in Length and Thickness, arm'd with the Restrictive, and introduc'd at each Orifice, where Necessity so required, had answer'd the End of more than twenty thus cram'd on each other out of Sight or Reach.

Wounds of the Joints. We shall consider next the Wounds of the *Joints*, which, by Reason of their Make or Composition, are attended with many dangerous Symptoms, and bad Events, *viz. Pain, Fever, Convulsion, Inflammation, Abscess, Gangrene, large Flux of Blood, wounded Tendons, Synovias, or Gleetings of the nutritious Juice, Fistulas, Atrophy and Consumption*; passing by the stiff and useless Limbs, Loss of the same sometimes, and frequently of Life also: To provide against all which, there is Need, certainly, of our greatest Judgment or Skill, and Circumspection.

In the incised Wounds of these Parts, unless the Flux of Blood be so important, as to call for your immediate Help, you are to sew up the same, and taking good hold with your Needle, but avoiding the nervous Parts with the Point thereof: This done, applying proper Restrictives or dry Dressings, as the *Hæmorrhage* may require at your first Application, with Compress wrung out of *Oxycrate cum Alb. Ov.* and sprinkled with *Farina Volatilis*, you make then your Bandage, passing your double-headed Roller after such manner both above and below, when upon the Arm (the same kept upon a Semiflexure, if not a right Angle) that the *Olecranon*, or Point of the Cubit,

bit, however defended by the Compress, may be left free upon Occasion ; but if on the Knee, the Circumvolutions thereof may comprehend the same, by Reason of the more strait or direct Position of the Leg.

And where the Flux of Blood was great, you may defer opening (as we observ'd in discoursing of Wounds in general with great *Hæmorrhage*) for two or three Days, but daily visiting your Patient, and inspecting the outside, that if there be Occasion, your *Bandage* may be slacken'd; and in removing your Dressings, you are to be alike careful, moistening them first with Oil, or a little Wine warm'd, where they stick fast, and leisurely separating those next to the Wound, that you may not endanger the tearing out of the Stitches, or exciting a fresh *Hæmorrhage*, by abruptly taking away those Pledgets or Dossils lying immediately on the Blood-Vessel, which are safer to be let alone till they digest of themselves; but where there is no Danger of Loss of Blood, you are at this second Dressing to be always provided of a Decoction of some of the cephalic Plants, to be us'd as a Fomentation with hot Flannels, such as you will find set down in our last Section, when discoursing of Wounds in general. Afterwards dissolving your *Liniment. Arcei* with about a third Part of the *Bals. Tereb.* with a Feather, or your Probe arm'd and besmear'd therewith, you are to go over the Edges of the Wounds, letting some of it drop in between, then with a Pledget arm'd with the said Liniment, you cover the same; or where the Wound was deep, and (your Stitches beginning to start) lies open, you are to lay in soft Dossils, which have imbibed some of the Balsam, between those Interspaces; proceeding thus daily

till the Union is completed, or the Cavity incarn'd; taking Care to keep down any spongy Flesh arising, either with dry Lint, or some gentle *Catberetic*, among which none exceeds the *red Precipitate*, which promotes a good Digestion, corrects the flabby Flesh, and lays a Foundation for a more firm and sound to supply the Place: After *Incarnation*, my *Cerate of Lap. Calam.* will induce a *Cicatrix*, and finish the Work.

Where the *Tendons* lie bare, you are to use your utmost Endeavour to secure them from the Air, and hastening their Covering with new Flesh, by some of the *sarcotic* Powders formerly mention'd, either sprinkled thereon, or mixt with your *Digestive*: But if by Reason of their having been long expos'd before it was possible to incarn, or that by seeping in the Matter they are likely to slough off, which you may infer from their beginning to grow soft and thick, losing also of their bright Complection, to inhibit now all you can their farther Putrefaction, you may apply a soft *Dosil*, or a Pledget of Lint gently press'd out of the warm *Tincture* of *Myrrh*, or mollified with a small Quantity of *Mel. Ros.* taking Care that no unctuous Applications come near, which are prejudicial to the *Cartilages*, *Ligaments* and *Tendons*, of which the Joints especially are compounded, as well as to the *Bones* themselves. This *Tincture* farther serving excellently well to dry up the *Gleets* that are incident to these Wounds, which is made still more exiccating, by lessening of the Quantity of the *Mel*, in strong Bodies or moist Habits, dressing with the *Tincture* alone.

If

If the *Tendon* is divided or cut in sunder, the Motion of the Part into which the same was inserted, must necessarily be abolished, a Matter of that unhappy and vast Consequence, that in the larger Joints, where these Parts have been divided, their Extremities have been sometimes *stitcht* and brought together by a *Medium*, in the Nature of a *Callus*, also united, so that hereby the Motion has been retriev'd.

Ambrose Parey tells us of such a Case at *Orleans* in *France*, where the *Tendons* in the Ham, or *Flexors* of the Legs were cut, and being stitcht up, the Patient recovered, walking about as well as before.

Etmuller, of another that had those of the Wrist heal'd up after the like manner; and at *Paris* this Practice has of late Years been revived by a *Frenchman*, who frequently useth the same, making as light of sewing these Parts, as the *Flesh-Wounds*, or those of the Skin therewith.

But, I think, we need not go abroad for Examples of this Kind, our Countryman Mr. *Cowper*, having enterpris'd the same upon the *Chorda Magna*, of Tendon of the *Gastrocnemius*, above the Heel, of which he publish'd many Years ago a Sketch among the *Philosophical Transactions*: And truly it is something strange, that an Operation of so great Import should not be more frequently performed among us, especially where these Accidents befall young People of good Habits of Body: Nor should it be thought strange, the Bones themselves being daily observ'd to furnish Matter for cementing their broken Extremities, that *Nature* should be equally provident for the Coalition of these, when they

are cut in sunder, without the Help of which, those Bones would be little useful.

The same Gentleman has discovered Blood-Vessels in these seemingly *exanguous* Parts, but if not apparent to the Eye, it is manifest by their *Nutrition* and *Augmentation*, there must be Vessels of some Kind to supply that Liquid, whether Blood or other Juice; and that whatever Parts are nourish'd, are capable of re-union, by the Apposition of such Particles from their broken or cut Extremes after Separation, could the same be kept close to each other, as they were before supplied with for their proper Nourishment and Growth.

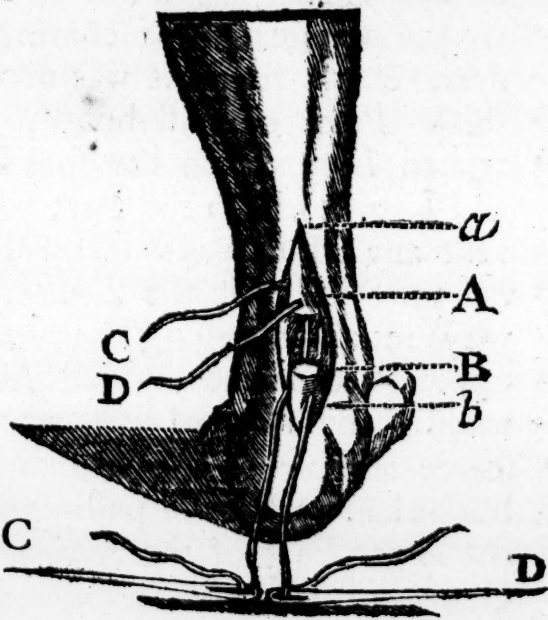
HIST.
lxxxi.

I once made this Experiment upon a young Dog, dividing the large Sinew on the back Part of the Leg, upon which, the Foot having no Stay, hung loose, but stitching up the two Ends of the Sinew or *Tendon*, in about three Weeks Time he set it to the Ground, and quickly after went upon it, as on the rest, though somewhat like a *String-bait* Horse, which might have been in some Measure perhaps owing to a want of Care, there being after the first Dressing, which was the hot *Balsam* of *Turpentine*, with one half of its Oil, nothing but the Cur's Tongue to supply the *Surgery*, when the Cure being perfected, and the Stitches, I suppose, lick'd out, there remain'd a sort of *Ganglion*, or callous Knot all round that Part of the *Tendon*.

In stitching of these Parts, the Joint is to be kept upon a Flexure, for the easier drawing out the Ends of the retracted *Tendon*, which being by your *Forceps* brought gently near each other, you pass your Needle, perhaps, a Finger's Breadth from the End, when in like manner perforating the other Extremity, you are to bring them
gently

gently so close, as they may touch one the other. Having made your fastening, you may besmear the Parts with the *Balsam*, and stich up the Wound also of the Skin above, as you shall see Occasion: But for your readier Conception of this Matter, I have here caus'd to be delineated the foresaid *Draught* from Mr. *Cowper's Plan*, with his History of the Case.

Feb. 1. 1698-9. ' I was call'd to *Thomas Wheat-HIST.*
 ' ly a *Carpenter*, aged thirty Years, who had lxxxii.
 ' totally divided the great *Tendon* of the *Mus-*
 ' *culi Gastrocnemii* of the left Leg, about three
 ' Fingers Breadth above the *Os Calcis*. I found
 ' the upper Part of the *Tendon* withdrawn from
 ' the inferior,
 ' at least two
 ' Inches, so
 ' that I was
 ' oblig'd to di-
 ' vide the ex-
 ' ternal *Tegu-*
 ' *ments* a. b. to
 ' come at the
 ' Ends of the
 ' divided *Ten-*
 ' *don* A.B. this
 ' done, the first
 ' Needle C. C
 ' (with strong
 ' Silk in it well
 ' wax'd) I pass'd through the Body of the *Ten-*
 ' *don* A. about half an Inch above its divided
 ' Extremity. The second Needle and Silk D.
 ' was thrust through this upper Part of the
 ' *Tendon*, a little under the former, lest the two
 ' Threads or Silks should meet each other at their
 ' Decussation



‘ Decussation in the middle of the *Tendon*. Af-
 ‘ terwards both these Needles were pass’d thro’
 ‘ the lower Part of the divided *Tendon* B. the
 ‘ Foot being held extended, the two Ends of
 ‘ the *Tendon* were applied to each other, by the
 ‘ Assistance of the *Ligatures* C. D. which were
 ‘ so tied, as to keep the divided Parts close to-
 ‘ gether, whilst the Foot remain’d in this Pos-
 ‘ ture. After the four Ends of these *Ligatures*
 ‘ were cut off, I found it was necessary to bring
 ‘ the Sides of the divided Skin nearer each other,
 ‘ with one single Stitch, a little above the *Su-*
 ‘ *ture* of the *Tendon*. This done, a Pledget of
 ‘ Lint dipt in *Balsam of Turpentine* was laid on
 ‘ the Wounds, and another larger of Flax, arm-
 ‘ ed with *Linimentum e Gummi Elemi* over it. Af-
 ‘ ter the Application of common *Bandages*, *Bol-*
 ‘ *sters*, &c. I found it was necessary to place a
 ‘ thick Piece of Past-board, of a convenient
 ‘ arched Figure, on the fore Parts of the Foot
 ‘ and Leg, to keep the Part inflected, and pre-
 ‘ vent any Motion of it, which might break
 ‘ out the Stitches in the *Tendon*. He complained
 ‘ very much in passing the Needles through the
 ‘ upper Part of the divided *Tendon*, though its
 ‘ middle and internal Part at the Division was
 ‘ scarce sensible of the Touch of my Finger;
 ‘ but he had no Pain in passing the Needles thro’
 ‘ the lower Part of the *Tendon*. After fourteen
 ‘ Ounces of Blood were taken from his Arm, I
 ‘ left him on his Bed. Six Hours after (which
 ‘ was about eight at Night) I found his *Pulse*
 ‘ somewhat quicker than before: He then took
 ‘ an Ounce of *Syr. de Meconio*; the next Morn-
 ‘ ing I found him in no ill Condition; he told
 ‘ me he had got some Sleep that Night, but
 ‘ was often awaken’d with Twitchings in the
 ‘ Calf

Calf of the wounded Leg. The third Day after the Operation, I dress'd the Wound with the same Applications as before, only using a Fomentation made of a Decoction of *Wormwood*, *Sage*, *Rosemary*, *Bay-Leaves*, &c. On the fourth Day after the Operation, I found the Applications on the Wound very wet with a serous Humour, commonly called Gleet. On the sixth, the Matter being somewhat thicker, and the Skin being a little distended about the Wound, I was obliged to divide the last mentioned Stitch, to admit of the free Discharge of the Pus, which on the two succeeding Days became much thicker than before, and the Gleet consequently lessen'd. About this Time, the two Ends of the Tendon were not a little dilated, and a white Slough appear'd on it, towards the upper Part of the Wound, on which, instead of the Balsam of Turpentine, I applied Tinct. of Myrrh. Not many Days after, this Slough came off, and the two Ends of the Tendon were overspread with a fungous Flesh, by which I was assured, that its Blood-Vessels and nutritive Tubes were not compress'd by the two first Ligatures. Afterwards I made use of drier Applications than before, sometimes using Lint only, and at other Times Pulv. Terebinthinæ. About ten Days after the Operation, I found one of the two Ligatures in the Tendon hanging loose, which I divided and drew out. Two or three Days after I found the other Ligature loose also, which in like manner I remov'd; the Part all this while being kept inflected by the Paste-board abovementioned. I was often oblig'd to apply gentle Escharotics, to lessen the Fungous on the Tendon. In less than thirty Days after the Operation, he went abroad very lame-ly,

ly, and not many Days after, he told me, he had walk'd round *St. James's-Park*. On the twenty sixth of *March* following, which was within eight Weeks after the Operation, he walk'd from his Habitation in *Witch-Street* without *Temple-Bar*, to *Greenwich*, and returned in a few Hours. He has since recover'd all the Motions of his Foot, and shews very little Lameness in walking, and is not in the least incommoded in working at his Trade.

It is a common Opinion (*continues he*) that stitching divided *Tendons* is hazardous, if not impracticable: And though the Authority of some Writers would have prevailed with me, in some Measure, to have an Opinion of the Success of such an Attempt; yet the Contradiction of others, of no less Note, would have left me dubious, had I not sometime since seen large *Blood-Vessels* in the *Tendon* of a Horse's Leg, which at that Time convinc'd me, that *Tendons* as well as *Bones*, and other Parts, would unite, though they were quite divided, in case the neighbouring Parts remain entire, if their two Extremes could be artificially applied to each other, without compressing all, or the greatest Part of their *Blood-Vessels*.

Where the *Tendon* is cut but in part, and Convulsion, as is usual, ariseth, the safest way for your Patient is to divide the same entirely, lest the *Fibrillæ* undivided being put upon an Overstretch, by the hauling of the already retracting Parts, those Convulsions, with other threatening Symptoms, should continue, and endanger the Patient's Welfare.

The like is recommended by some great Practitioners, even in simple *Punctures* of this Part, where the Accidents are pressing, and oppose all Endeavours to obviate the same. These Kind happen oftentimes in bleeding with the Lancet, upon which ensues presently violent Pain, Contraction of the Limb, with large Fluxion of Humour and Inflammation, which if not ending in *Apostemation*, terminates very commonly in *Gangrene* and *Mortification*. For avoiding which, Medicaments for a wounded Tendon. being thus apprised of the Danger, you may immediately drop into the Wound two or three Drops of the *Bals. Tereb.* as hot as your Patient can admit, with a Pledget over, dipt in the same, or mixt with equal Parts of a strong Tincture of the *Flor. Hyperic.* made in the Spirit of Wine. After which embrocate the whole Arm *cum Ol. Rosar. & Lumbric.* gently rolling up from the Wrist to the Shoulder, and supporting it with a Scarf or Napkin, when Bleeding your Patient (if he will allow you) on the contrary Arm, whereby to take off the Fluxion, let him have some very gentle *Anodyne* that may dispose him for Rest, and prescribe him the strictest *Regimen* in his *Diet*.

The next Day, if the Symptoms remit, you dress up as before; otherwise the Pain increasing, and a sharp *Ichor* distilling from the Wound, you may add some of the Oil of Turpentine to its Balsam, and embrocate again, laying on an *anodyne Cataplasme* to take off the Tension, as we directed at the Beginning for the *Pblegmon*: When the Accidents still encreasing, you must dilate the outward Orifice, that your Medicaments may come with greater Efficacy to the Part hurt, which must not now be quite so strong, nor scalding hot as formerly, but in both proportion'd

tion'd to the Constitution you have to deal with, together with the Sense or Complaint made at the Times of Application.

Some prefer a Tincture of *Euphorbium* in S. V. as very powerful in drying up the Humidity gleeing from the punctur'd Tendon, but unless mix'd up with some more lenient Medicine, as the *Ol. Hyperic. Chamæmel. Lumbric.* or happening to rustic and strong Bodies, it may prove too inflammatory and painful: Others use the *Balsam Peru* mix'd with the *Balsam. Sulph. Terbinth.*

Mr. *Wiseman's* Remedy was the *Ol. Rosar. & Sal. Niger.* drop'd scalding hot into the Wound, but, I think, the *Balsam* and *Oil of Turpentine* as agreeable as any other, if not more so, when rightly temper'd to the Sense of the Part.

Indeed through Mistake it may so happen, that all these fiery exiccating Medicines may be pernicious, and hasten those very Accidents they were intended to avert; as where the Injury has been slight, or glancing only on the *Aponeurosis*, when I have frequently seen a small Pledget of the common Digestive, even a little *Basilicon* applied to the festering Orifice, has made way for some unhappy Symptoms to go off without farther Disturbance, which had undoubtedly been aggravated by either of the foregoing Dressings.

As I cannot, I thank God, give one Instance of a punctur'd Tendon committed by myself, so neither will I (how possible soever to conceal Names) take Notice here of those of my Acquaintance; instead of which, give me leave, Gentlemen, to present you with one very remarkable from Abroad.

When

When Charles the Ninth of France (as I have it from Monsieur Parey) was, by order of his Physician, let Blood, a famous *Rblebotomist* was sent for, who had the sad Misfortune to prick the Tendon: The King complaining instantly of great Pain, the Ligature was taken off, and a Tumour presently appear'd, with great Contraction of the Limb: A Pledget arm'd with a Digestive of *Basilicon* was immediately laid on the Orifice, to prevent the Coalescence thereof; over which a Defensative to the whole Arm, *ex Oxycrato*, to inhibit the Fluxion, with what they call'd their *expulsive Bandage*, rolling moderately streight from the Wrist up to the Shoulder: After which the Physicians took Leave till the next Morning, when I (saith our Author) was call'd into Consultation, and my Opinion being demanded, I gave it, that nothing was more proper at this Juncture, than to drop in some warm Oil of Turpentine, mixt with some *Aq. Vitæ*; after which a Defensative *ex Emplast. Diacalcit. Ol. & Acet. Ros. Solut.* with the Bandage as before: which being approv'd and executed, his Majesty's Pain abated, the Fluxion going off; for resolving the Remains of which, the following Form was made use of in the Room of the Plaister.

Rx Farin. Hordei & Orob. ana ʒij. Flor. Chamæmel. & Melilot. ana pij. Butyr. rec. sine Sale ʒiʒ. Lixivii Barbitonsoris q. s. f. Cataplasma ad formam Pultis, by which the King was restor'd, though not till three Months after, to a perfect Use of his Arm.

But if, saith this famous Practitioner in his Time, the Nerve (*i. e.* the Tendon) lies naked

in Sight, some milder Application will be requisite, such as this.

R. Terebinth. Ven. in Aq. Ros. lotæ ℥ij. Boli subtiliter Pulv. ℥ij. incorporentur simul. Vel quod melius,

R. Ol. Rosar. Omphac. ℥i℥. Ol. de Terebinth. ℥iij. Succ. Plantag. ℥℥. Sem. Hyperic. aliquantulum contrit. M℥. Tutie præp. ℥iij. Calcis decies lotæ cum Aq. Plantag. ℥ij. Antimon. pp. ℥j. Sevi Hircin. ac Vitulin. ana ℥v. Vermium terrest. cum Vino lotorum ℥i℥. Bulliant omnia simul dempta Tutie in Cyatho Decoctionis Hordei ad Consumptionem Aquæ & Vini colentur rursusque igni admoveantur, addendo Tutiam & f. Linimentum cum Cera alba ac ℥℥. Croci.

This he calls *Balsamum suum Excellens, vel Balsam. Vigonii*, of which he gives this Commendation. *Hoc Linimentum Dolorem demulcet, nudatisque Nervis Carnem inducit. Hæcque Punctorum Nervorum Curatio cum delectu atque judicio, partium servata Proportione, ad Tendinas Membranasque compunctas, transferri potest.*

Lastly if neither Method nor Medicine will take Place, or that the Case grows still more threatening, we are advised to cut asunder the *Tendon*, in hopes the Symptoms may now cease, and the Patient compound for his Life, not with the Loss of Limb, but Use of the prime Motion thereof, which *Parey* tells us, in the Case beforementioned of the King of *France*, was concluded on, if the Symptoms had encreased, at least instead of the *warm*, to have tried the *Ol. Tereb.* scalding hot. But if whilst you are thus treating of the Wound, *Apostemation* should

should ensue, you are to proceed as was directed for the *Pblegmon*: If *Gangrena* or *Sphacelus*, as was there also advis'd for the same Tumour terminating in a *Mortification*.

In a Word, where these Parts are cut asunder, and their Suture neglected or not practicable; if the Hurt falls upon the *Tendons* on the outside of the Hand, the same necessarily falls inwards; if only one single *Tendon*, the Finger it belongs to: If on the Inside, the Injury betides the *Flexors*, the same reclines, or is hauled backwards, as is the Finger whose *Flexor* is divided, and this thro' the Counter-Balance destroy'd, the *Antagonist* or opposite Muscle over-acting: so that to prevent what Inconvenience you can, having secured your self from Reflection by a suitable *Prognostic* of the Issue of these Hurts, you must support the disabled Joint with a light *Ferula* of Wood or Tin quilted, or a strong Past-board Splint; and if there is no Prospect of retrieving the Use, but that the Part, by Reason of the divided Tendons, must inevitably be left stiff: If the Elbow or Finger, let the same be kept up by such Means, rather somewhat bent than extended; but if the Knee, straight, by which however they may be rendred a little more serviceable to the unfortunate Patient.

A young Woman, Sister to the *Gunner* wound-^{HIST.}
ed through the Arm, and by Means of whose^{lxxxiv.}
Recovery she happen'd, I suppose, to be my Patient, in a foolish Scuffle, had a sharp Case-Knife drawn suddenly across her Wrist, which opening a Branch of the *Vena Cubiti*, had likewise cut in sunder the *Flexor Tendons* belonging to the same, their Extremities immediately retracting each from other at a little Distance. Being call'd to her Assistance, and observing the Bleeding-Vessel

running gently on the Side of the Wound, I directed a small Button of Lint dipt in *Bole* to be held close down upon the Part, which presently restrain'd the farther Effusion; then wiping away the Blood, taking a View of the Wound, and the divided *Tendons* lying fairly in Sight, I thought I had an Opportunity (long wish'd for) of making the Experiment of their Suture; and being provided of all things necessary, bending the Wrist towards a Curve, with my Forceps, I gently drew out the Extremity of one of them, next the Palm, when passing a fine triangular pointed Needle, with little Complaint, at a small Distance from the same, I drew along the appending Thread; then taking hold of its opposite Extremity from beneath upwards, I did the like, when she violently cried out, and as I was about making the Attempt upon the other, my Patient grew unruly and interrupted, saying, if she lost the Use of her Arm, much less her Wrist, she would not blame me, nor could she endure her Sinews thus to be stitch'd up, imagining till now that she turn'd her Head, I had been only sowing up the Wound in the Skin: Wherefore finding her Resolution such, contrary to all that I alledg'd for her own Interest, I desisted from going on with the other *Suture*, and bringing the Ends of the stitch'd Tendons close, I made my Knot, and cut off the Ligature; then sowing up the outward Wound about the middle, and on one side of the stitch'd Tendon, I brought those Lips together also, and fastening my Tye-knot, cut off the Ends, directing the Person, who all this while compress'd the Bleeding-Vessel, to remove his Thumb; so soon as I had, with a Feather dipt in the warm Balsam, moistened the rest of the Wound, laying on a Pledget
of

of *Liniment*, with a Compress sprinkled with *Farina* over the Button to secure the Bleeding, and a Bandage round about, keeping the Wrist bent inwards, and giving a Charge, the same Posture should be continu'd in the Napkin, pinn'd up for Support of the Arm.

The next Day I understood she had been in great Pain all Night, and was now hot and restless; upon which I took away some Blood, and contented myself for this Time with only embrocating the Hand above and below the Bandage, on Account of the *Tumour*, which yet was no more than might have been expected; But the Day after, loosening all the Dressings, I found a *Slough* about the Vein, with the rest of the Wound having a good Aspect, and tending to digest; the *Sutures* as well in the Skin as that of the *Tendon*, for what I could apprehend to the contrary, lying safe, the Lips only a little inflam'd and exceeding tender: Whereupon I dress'd up again as at first, suffering some of the warm Balsam to soak in upon the *Tendon*, going over the Wound with a feather dip'd therein, and an outside Pledget of *Liniment*, covering the whole with an easy Bandage round the Wrist; her Reason, as well as her Ease thereby promoted, guiding her to keep the same bending inwards, which if she happen'd unawares, or in her Sleep to raise, though ever so little, her Pain, by the Stretch of the *Suture*, was exceeding great.

At the Week's End, or thereabouts, the cutaneous Stitches were cut through the lower Perforation, though not before the Union was in great Measure completed; the two Extremes wanting only a little incarning, especially that where the Vein had been open'd, and whence

we had at four Days End a second Effusion, but which was quickly restrain'd by the Stiptic, as at first: the other End was soon after fill'd up, unless where the Extremities of the unstitch'd Tendon lay partly in Sight, whilst the stitch'd one lying less expos'd, was more favour'd by the covering of the *Cutis* over it; upon which account I forbore drawing out the Threads, for fear of disturbing those underneath, and contented myself with turning them over upon the Wrist. At ten Days End I clipt off the Knots of the upper *Suture*, and drew forth the Threads, leaving those belonging to the *Tendon* to rot off, which they did, but not till several Days after that they were removed. When the Cure was completed, I observ'd a small *Callus*, or *Gangli-noide* Protuberance under the *Cicatrix*, proceeding, doubtless, from the nutritious Juice here shed for Cement to their divided Extremities, in like manner as those which form the *Callus* for consolidating broken Bones.

To strengthen the Joint of the *Carpus*, I applied a *Cerate* all round, turning up the Ends upon the Inside once in two or three Days, and directing her to bathe all the tendinous Parts thereof with the *Ol. Lumbricor.* and *Axung. humana*, in order to lubricate; the free Play of these Parts being much incommoded by the Scar, or Adhesion of the *Cutis* to the subjacent ones. Upon the Alterations of the Air, she would frequently complain of Pain under the *Cicatrix*; the Flexion however tolerable, remain'd less complete than it had been, doubtless, if she would have admitted a *Suture* upon the other Tendon; upon stitching of which Part, and for some Days after, I observ'd some light *Spasms* affecting the whole Limb, which she us'd to complain,

plain, often wak'd her out of her Sleep; but these gradually went off in about ten Days Time, so that she scarce felt a Twitch in the whole Day or Night.

When the Wound was throughly digested, I laid on a small Pledget towards the Conclusion, expressed from the *Tincture* of *Myrrh*, a little tempered with *Mel. Ros.* so as that some Parts might work through to the *Tendon*: In other Places, where a *Fungus* was apt to rise, I kept under the same with *Præcipit. rub.* either lightly strewing it on, or mixing with the *Liniment*, and at last brought on a *Cicatrix*, by dry Lint and my *Cerate* spread thin interchangeably, as I saw Occasion.

The contused Wounds of the Joints, and in particular those made by *Gun-shot*, are still more desperate, as not only dividing the *Tendons* and *Ligament*, but shivering the Bones themselves, and lodging also extraneous Bodies therein, creating great Difficulty to come at, attended also with the most exquisite Pain, and larger Fluxion; at the best, usually terminating in *fistulous Ulcers*, and very commonly bringing on *Convulsion*, *Gangrene*, and *Death*, which concludes the Scene. But of these before, when discoursing of *Wounds in general*.

Before I quit this Subject, give me Leave to add a Word or two concerning the ruptur'd Tendon, particularly that of the large one of the Heel, which I have known several Times divided, as in leaping or jumping, the Skin remaining whole at the same Time, and which I find so handsomely described by *Parey*, that I shall insert it in that Author's Words.

‘ Nec vero prætereundum hoc loco arbitror esse
 ‘ affectum, qui in crassum illum Calcis Tendinem,
 ‘ de quo ante diximus cadere solet; is enim levi sæpe
 ‘ occasione, & leviculo Saltu, vacillantis Pedis in-
 ‘ gressu, Ascensu in Equum, vel frustrato, vel ra-
 ‘ pidiore, dilaniatur ac dilaceratur, sine Injurie
 ‘ vel Solutionis Continui ullo in supertexta Cute
 ‘ Indicio. Cum is Casus contigit, Strepitus tan-
 ‘ quam verberati Flagello Aeris exauditur supra
 ‘ Calcem, qua parte dilaceratus est tendo, depressa
 ‘ Cavitas tactu percipitur, dolor in parte ingens di-
 ‘ vexat, incedendi facultas adimitur. Sanatur id
 ‘ Malum, longa in Læto Mora & Quiete repellen-
 ‘ tibus per Morbi initia admotis parti affectæ, Me-
 ‘ tu graviorum Symptomatum: Hinc Emplastro ni-
 ‘ gro vel Diacalcitheos, vel alio simili, prout posset
 ‘ Necessitas. Nec tamen hinc certam Salutem vel
 ‘ Sanitatem perfectam nobis vel ægris, polliceri de-
 ‘ bemus. Contra ab initio Morbi prædicendum,
 ‘ nunquam futurum quin Mali Reliquiæ supersint,
 ‘ nempe Depressio partis affectæ, & Actionis, inces-
 ‘ susque depravatio. Non enim Tendinis illius rupti
 ‘ vel laxati propter Crassitiem ac Contumaciam Ex-
 ‘ tremæ sibi adjungi, aut adjunctæ, uniri possunt,
 ‘ Oper. Lib. 9. Cap. 38.

Of
 Wounds
 of the
 Nerves.

The next we shall observe are the Wounds of
 the Nerves; in speaking to which, I must take
 Notice, that in most Writers of Chirurgery, we
 find the Word Nerve promiscuously used with
 that of Tendon, as if implying the same Thing;
 although, I think, scarce any of them could be
 ignorant, that as the former is a soft and pervi-
 ous Tube, derived originally from the Brain, or
 Spinal Marrow, and extended by its fibrous Shoots
 into all Parts of the Body, ordained to convey the

the *Vires Sensativæ ac Motivæ*, whether by Means of simple Contact, an elastic *Aura* call'd animal Spirits, or a *Fluidum Nervosum* drilling through their Pores, I am not to decide; so the other is a Congeries of the Fibres of a Muscle, more open and scattered in the middle thereof, but congregate and compact at the Ends into a cylindrical Body, supplying the Place of a *Vectis*, or Leaver, together with its Muscle, to raise the Bone, and thereby to move the whole Body or its Parts, at the Direction of the Will beforehand influenc'd by the *Nerves* as aforesaid.

The Hurts of these are equally to be dreaded with those of the former, being Parts of the finest Sense, and which indeed give Sense to all the other Parts attended with the worst Consequences, such as Loss of the same, with Motion also. And as above we have describ'd those belonging to the *Tendon*, so are we now to make a short Recital of them that appertain to the *Nerve*.

And here give me Leave to remark, that in this Account, I mean not those *nervous*, or *nervomembranous* Productions of the *Meninges Cerebri*, which bestow not only Cloathing upon the Bones and Muscles, but Enclosure and Partitions for the Breast and Belly, nor other the like Parts, which by some are term'd the *Organa Sensationis primi generis*; for thus there can be no Wound whatever, even the most simple Solution of Continuity, where these are not affected, nor painful Sensation, but what ariseth from their Division, and is immediately communicated to their Source or Original.

The Parts here particularly intended, are the *nervous Tubes* themselves, at their Rise from the Brain and Marrow of the Spine, together with

their *Plexus* afterwards divaricating to the several Parts, till through their Fineness, they, as it were, evanesce, or escape our Sight; and these we call the *Organa secundi generis Sensationis*, which may be injured more especially these three ways, viz. by *Division*, *Compression* and *Obstruction*.

From the *first* ensues irremediable Loss of Sense beyond the Part hurt; from the *second* a Kind of *Stupor*, like that which happens sometimes to one sitting cross-leg'd, or pressing hard against the Side of a Chair or Stool with the Thigh, leaning upon the Arm against a Table, by which, according to the common Phrase, the Limb is said to be *asleep* or numb'd; from the *third* proceeds also a partial or total Abolition of Sensation according to the Degree of the Obstruction, and the Nature of the impacted Humour: Thus a *pituitous* or phlegmatic Matter falling down upon the Origin of the Nerves, produceth an *Apoplexy*, and that oftentimes terminating by sinking lower, either in a *half* or a *whole* Palsy; the former call'd *Hemiplegia*, the latter *Paraplegia*, according as one or both Sides of the Spine happen to be affected; but these we leave to the *Physician*.

The *wounded Nerve* requires the like Applications with those of the *Tendon*, very frequently suffering together therewith, particularly in the Joints, producing Symptoms of the like Nature, as *Horror*, *Rigour*, *Spasm* or *Convulsion*, either in the Part hurt, or by Consent through diverse others, at which Times the *Bals. Sulph. Terebinth.* is to be drop'd into the Wound, as preferable to most other Remedies; the same likewise is to be taken inwardly, ten or twelve Drops in any proper *Vehicle*; also the *Bals. Peru* and *Capiivi*, us'd after the same manner,

Whilst

Whilst these are applied to the Part, the whole Joint, or the Spine, if the same be near adjoining, must be well embrocated with some comfortable Oils or Ointments, or some spirituous Epithem; such are the *Ol. Lumbric. Aneth. Chamæmel. Laur. de Castoreo*, the *Unguent. Nervin. Martiat. de Althæa*, to which must be added always some more penetrating Medicament, as the chymical Oils of *Amber, Bricks, Spike, Turpentine*, in a quarter Proportion: The *Spir. Lavendul. Castor. Anthos, vel Aqua Hungarica*, make excellent *Epithems* for the benumb'd or *paralytic* Members. The Chymists, for this Purpose, highly extol, and that not without Reason, their *Galbanetum*, either of *Paracelsus, Hartman, or Sennertus*; but yet if the Malady, as in some *Sulphureo-Saline* Habits, or hot, thin and dry Temperaments falls out, the *Ol. Viol. Rosar. Lil. Papav. alb.* must be substituted and the former forborn.

By Compression these Parts may suffer many ways, as in the Cases of *Tumours, Fractures, Luxations*, when the Cure wholly depends on the Removal of those Accidents, which are the antecedent Causes: Likewise by *contusions*; thus a Blow upon the Neck sometimes takes away the Use of an Arm, upon the Loins, that of the Leg, on the Side of the Spine, which happen'd to receive the Injury.

At these Times you are to apply some vinous or spirituous Fomentation to the Part originally affected, *embrocating* also as before, *cupping* either with or without *Scarification*, as shall seem most convenient, according to the Appearance of *Repletion, or Inanition, Vesicatories, Sinapisms, warm Flannels, or Furs, strong Frictions, Fontanels, sulphureous Baths*, with whatever may revive and
 stir

stir up the native Heat, attract Nourishment to the Part, and prevent an *Atrophy* or pining of the same; not neglecting in the mean Time to consult the Physician, that proper *cephalic* or *neurotic* Remedies may be prescribed internally; such as brisk purging, and sharp *Clysters* between whiles, especially for the *Pblegmatic*; also the *Gums*, *Balsams*, *volatile Salts* and *Spirits*, and in short, every Thing that may contribute to open the *Tubes* of the obstructed Nerve, and make way for its Fluid to circulate: But of this, as not so directly appertaining to the *Surgeon's* Province, neither yet to a Discourse of *Wounds*, we shall say no more at present, but after giving you one Instance, proceed to those of the Veins and Arteries.

1ST.
V.

A Hackney Coachman in passing by a Cart unloading, disturb'd the Carman's Horses by whipping them to get along; upon which, turning out of the Shop where he had been letting down his Goods, he takes up the Piece of Wood under-propping the Cart, and in great Fury flung the same, which taking him on the Side of his Neck, he fell off his Box, in his Fall receiving also a Wound on the Top of his Head down to his Skull, and was taken up stun'd and speechless.

He was in this Condition presently carried Home, and put into his warm Bed, where he was let Blood, and proper volatile Medicines administered, to promote an Expansion of the Spirits intercepted in their Passage through their wonted Tracts. In short Time after, coming to himself, he made little Complaint of his Wound, but of his Arm on the same Side where the Blow had been given on the Neck, which coming to examine, we found a *Paralysis*, being thereby depriv'd

prived both of *Motion*, and in a manner *Sensation* also; and this most probably by compressing the *Nerve* at its Exit by the *Vertebra*, which being discovered, he was well rub'd with warm Applications about the same; such as the *Ol. Lumbric. Castorei Petrolei, Succin.* the whole Limb chafed with hot Flannels, which little availing, a large *Vesicatory* was applied *inter Scapulas*; likewise spirituous Epithems and Fomentations about the Nape of the Neck and downwards; also *Cupping-glasses* round about, with sharp *Clysters* for Revulsion, and whatever else might conduce to open the obstructed *Tubuli* of the *Nerves*, together with the farther Help of Internals prescrib'd by a Physician sent to him by the Carman's Master, who was brought into Trouble upon his Man's Account, such as the following.

℞ *Cons. Anthos Flor. Salv. & Paralyf. ana* ℥ss.
Pulv. Rad. Ar. C. zij. de Gutteta, ziss. Spec. Diambr. 3j. Castor & Sal. Vol. Succin. ana ℥ss. *Syr. Pæon. c. q. s. ut f. Elect. de quo capiat ad Quant. N. M. maj. Mane ac Vesper, superbib. Coch. iv. vel v. Infus. seq.*

℞ *Sem. Sinapios Rad. Raphan. rustic. ana* ℥iij.
Serpent. Virg. 3j. Flor. Anthos Sem. Cardamomi min. ana p. i. infunde simul calide in Aq. F. q. s. pro Colaturæ ℥xij. cui adde Aq. Pæon. C. 3ij. Syr. e Stæchade 3j. m.

℞ *Spir. Sal. Ammon. Succinat. Spir. Lavend. C. Tinct. Castor ana* 3ij. *m. capiat gut. xxx. bis terve in die cum Haustulo cujuslibet potulenti.*

Between whiles he was purged with two or three Spoonfuls of the *Tinct. Sacra* over Night,
 and

and a Drachm of the *Pil. Fætid.* in the Morning, sometimes also with *Extr. Rud.* and *Calomel.*

From all which he seemed at length to get Ground, and recover his Feeling, with some little Use of his Fingers; when his Head was well, his Adversary and he making up their Difference, or rather the Masters in their Behalfts, a Sum of Money was advanced, and the poor Fellow, by the same Physician's Advice, made a Journey to *Bath*, where he was well *pumpt* upon the Neck, bathed sometimes, and drank the Waters for six Weeks, returning still stronger in his Hand or Wrist, however weak in his Arm; so that to supply in some Measure his Bath-Waters, he was advised to take twelve or fifteen Drops of the *terebinthinated Balsam of Sulphur* twice a Day, in a Spoonful of the Syrup of *Stæchas*; likewise a *Guajacum Decoction* with the *Summitates Rorismar.* in the Nature of a Diet, drinking thereof three half Pints in a Day, Night and Morning, upon his balsamic Drops, and in the Afternoon by itself, and this in order to invigorate his Blood, as well as strengthen the whole *nervous System.*

Thus after four Months Time, finding his Hand strong enough to hold the *Reins*, he mounted his *Box*, and followed his old Employment; tho' he never after regained a good Use of the Arm, his Fingers continuing still numb'd, and his whole Hand, as they say, *clumsy.*

In discoursing of *Wounds in general* at the Beginning of the last Section, we made the restraining of the Flux of Blood one of the first Intentions in the Cure, at that Time observing the several *styptic* or restraining Medicines, with the other ways of compassing the same; as also in this present, we have likewise touch'd thereon,
fo

Sect. V. Of Wounds of the Blood-Vessels.

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so that we shall be the shorter in what remains now to be discours'd upon this Subject.

By the *Wounds* then of the *Blood-Vessels*, are to be understood such, wherein, albeit, other Parts may be hurt at the same Time, yet the greatest Difficulty and Danger also ariseth from the *Hæmorrhage* or Flux of Blood, issuing forth from some Vein or Artery; the former creating much less Trouble of the two, though often fatal as the other, when situate out of the Reach of Medicine.

Of Wounds of the Veins and Arteries, with their Di-agnostic, Prognostic and Cure.

To distinguish one from the other is very easy, where the Bleeding-Vessel lies in Sight, or the Stream either, thence arising; and that not only by the *Colour*, but *Manner* of Eruption; The former, viz. the *Venal* being darker, and running forth with an equal continued Stream; the latter or *Arterial* more bright or florid, and breaking forth, as we say, *per Saltus*, or repeated Jerks, according to the *Rythm*, or proper Motion of the Coats of the Vessel, termed *Systole* and *Diastole*.

In the Cure of these Wounds, where the Vessel can be come at, if it happen to be a *Vein*, some of the milder Restringents formerly mention'd may very likely suffice; but if an *Artery*, you will have Occasion for the strongest, such as the crude *Alum*, *Vitriol*, or its *Colcothar*: Likewise the *Terra umbra* and *Calx viva*, so highly commended by my Predecessor Dr. Read: The *Aqua Styptica Regalis*, or in want thereof, a Solution of the two former Salts in Spring Water, mixt with the Oil of Vitriol, will supply the Place: The Dossils or Buttons of Lint being made up tight, and dipt therein, or first wetted therewith, and sprinkled with, or rolled after in the Powders aforesaid, are to be placed and bound close

close down upon the wounded Vessel, or kept with the Finger press'd thereon, till the whole Wound is fill'd up with other Dofils of dry Lint, or the same laid down into *Galen's Powder*, formerly describ'd; over which, carefully removing your Finger, you clap on a Compress of Tow, dipt in *Oxycrate cum Alb. Ov.* and sprinkled thick with *Farina*; and lastly, you are to roll all safe with a suitable Bandage, without which, your inward Applications not being kept close, will avail little, and you must expect to be alarm'd, perhaps before you are got out of your Patient's Chamber: For avoiding which, I usually order'd a Servant at such Times to keep their Hand close down upon that Part of the Bandage over the Wound, for three or four Hours, shifting as they grew tired; and if the Weather was hot, dipping the same between whiles in *Oxycrate* or cold Water. And here I must advise, where the Bleeding-Vessel is accompanied with the *Nerves* or *Tendons*, as commonly in the *Joints*, that you be as sparing as you can of the stronger *Escharotics*, especially the *sublimate Corrosive*, since you can scarce apply them without hazard to those very sensible Parts, and which being thereby affected, most violent Pains are occasion'd, and sometimes deadly Convulsions: So that doubtless, it were more eligible for the poor Sufferer, that his Blood and Spirits should be exhausted in the gentler way of Indolence and *Deliquium*, or the *eὐθανασία* coveted by all, than in Expectation of Relief, to be thus tortur'd to Death; wherefore the *Ligature*, if practicable, is to be prefer'd, if not, the *actual Caутery* applied with Care, with which the Surgeon should be always furnish'd, of several Sorts, larger and smaller, with *Button*, *flat* and *pointed* Extremities.

ties, for the better adapting them to the Mouths of the Vessels, without hurting any adjoining *nervous* or *tendinous* Part. As to the Use of which, there may be more Judgment required than the younger Artist is aware of; for if perfectly red, or fire-hot, as we call it commonly, hastily applied and instantly remov'd, it is odds but at the same Time the *Eschar* or Crust is pulled off with the Iron, and the Patient undergoes the Pain to no Purpose, the Vessel now again bleeding as forcibly as ever. When the same then is of a moderately glowing Heat, being struck against the Grate, or Side of the Chafing-dish, where the burning Charcoal is kindled for that Purpose, and rub'd against the Floor; let it be strait clap'd up to the Mouth of the Artery, carrying it however Sideways to the same, that the Blood flowing out against or upon it, may not damp the Heat: At the same Time let the End of the *Cautery* be turned two or three Times round about against the bleeding Part, with Expedition; still observing upon each Touch, whether the Work is done complete, whence you may renew or withdraw wholly your Instrument, conveying the same, as it was brought you, handsomely out of your Patient's Sight, and dress up with *Lenients*, as is required in other *Ambustions*.

But where the *Artery*, although its *Impetus* be taken off, continues bleeding after this, you may give the *Eschar* a Touch more, or the Heat decaying and proving insufficient, having a second Iron always ready in the Fire in another Room, or behind your Patient, in the Chimney of the same; therewith finish what remains, observing the same Directions as before in the Application,
in

in regard to which you may take with you these farther Cautions, as of Use to be observed.

1. That your Patient, especially if a Woman or Child, and more particularly a Woman with Child, be never suffer'd to see your Irons, or, if possible, to know any thing of them: For which end, it is necessary that the Face be cover'd at such Times, and the Part held steady by a Servant, or some proper Assistant, among which some of your own Fraternity are the fittest.

2. In dressing afterwards of these Wounds, though you may look on them the second Day, where the Flux was restrain'd by *Ligature*, and the *Digestive* presently applied to the rest of the Wound; yet where the same is stopt by *Cautery* whether *potential* or *actual*, it is better to defer your Inspection somewhat later, as to the third or fourth, that the *Eschar* may be longer before it comes off; and even then, after cautiously removing your upper Dressings, let those immediately next to the Bleeding-Vessel be suffer'd to lie still, till digesting away of themselves, lest otherwise you force off the *Slough* or *Eschar* with the same, and renew the *Hæmorrhage*: However, you are daily to have your Eye on the outside, to see that your *Bandage* is in good Order, neither too freight, nor yet too slack; as likewise to embrocate round about upon Occasion, with the *Ol. Ros. Lumbric. Sambuc.* or such like, to lenify or assuage the Tumour ensuing upon these Accidents, and remove the Fluxion giving Rise thereto.

3. That although the Wound may otherwise require a good *Fomentation* to cherish the native Heat, forward Digestion, and discuss the Humours falling down to the Parts; yet must you observe

observe this as a standing Maxim, that till you are perfectly secure of your Bleeding, you must apply no Stupes wrung out of hot Liquors in the way of a *Fotus*; for by the Heat of these, the grumous Parts being attenuated, stopping up the Mouths of the Vessels at some Times, and the Blood thereby disposed to be more fluxile, may be apter to force its new Boundaries, and to break out afresh; this by way of *Caution*.

After the Bleeding is restrain'd, and the Wound digested, you then proceed as for other Wounds we have already given Instructions.

But where the wounded Artery lies deep, as in the *Carotid*, *Humeral* and *Crural*, the Task is yet more difficult, and the Patient frequently bleeds to Death; or if choak'd outwardly, the Blood making way into the Interstices of the Membranes and Muscles, grows quickly putrid, and the Parts corrupt: Which was the Case of *HIST.*
C. S. a Gentleman just come to the Possession of ^{lxxxvi.}
a large Estate, wounded in a Duel by a Rapier thrust into his Neck, and opening the *carotid* Artery: For the restraining which a noted *Frenchman* was call'd in, who, as I had the Case from Mr. *Bernard* (afterwards consulted) had forced in a vast Number of little Pellets of Lint, but had taken no more Care than the *Woolwich* Surgeon formerly mention'd in the Gunner's History, how any of them should be got out again: Hence the Wound continuing many Days undigested, and the Putrefaction spreading, the whole Side of the Neck was found sphacelated, upon Dissection after his Death, from the Ear down below the *Clavicle*.

Let the Artist, hereby admonish'd, be always careful, that the inward Dofils more especially, be safely tied, the Thread hanging out, for the secure Extraction when thought requisite: But indeed, I think this Practice of forcing in so great a Number of small Dofils not to be imitated, much less that of *corrosive Injections* into these deep Wounds; for besides that they create excessive Pain, by vellicating and gnawing, as it were, the *nervous Parts*, stirring up *Convulsions*, and other dreadful Accidents, they cannot be circumscrib'd in their Operation, as such Medicines ought to be, upon the Parts only requiring the same; but diffusing all round, excite intolerable Anguish. Wherefore at such Times I think it more advisable, if the *Cautery* directly, or pass'd through a *Cannula*, has no Place, to shut up the outward Orifice by some good *restrictive* and *emplastic* Medicine, and with proper Deligation to secure the same; by which Means the wounded Vessel, together with the Wound in the Flesh, has been sometimes found agglutinated, whilst *Nature* has met with no Disturbance either from the large Tents or Dofils forced to disquiet her, nor the more painful Corrosives thrown therein. But where there is no such Advantage to be expected from Rolling, and that the way by Dofils, or hard Tents secured for withdrawing, shall be found necessary; so soon as the Bleeding is thereby restrained, you are by no Means to keep the Orifice distended, or upon the Stretch by Means of the same to the raising of more Pain and Fluxion, as well as hazard of *Gangrene* and *Mortification*; but having with an armed Probe let in some of the warm *Balsam* of *Turpentine*, with a little *Ol. Hyperic.* you may now introduce a softer thereinto, which need not to fill

fill up more than two Thirds of the Cavity, with a Pledget of your Digestive over it ; by which Means, after the *Sloughs* are digested out, occasion'd by your restrictive or *escharotic* Applications, you are to forward the *incarning* all you can.

Farther in the way of *Agglutination*, where you depend upon *Emplastics* applied outwardly, and have not the Advantage of a strict Compression, or securing your Dressings by *Bandage* ; some propose that Part to be supplied by the Surgeons's Hand or Fingers, as in the Case of the *Prince of Orange* formerly recited ; and here I can assure you, that in a desperate *Hæmorrhage* of the like Kind, I have had this Post my self for six Hours successively, retaining an *Emplastic*, shifting my Fingers as they were cramp'd, and taking my Repast at the Patient's Bed-side, not suffering a Drop of Blood to be lost for that Time, although a Cough attending gave us fearful Apprehensions, as well as an unruly Patient we had to increase them. Upon removing my Finger, the Dressings being dry, and sticking close, I gave a Charge to two others, hired to sit up all Night, and take their Turns, how to perform the same Task : But whether through Remissness or Inadvertency, upon a violent Fit of Coughing, beyond the Reach of a full Dose of an Opiate I had given him, before I took my Leave, to alleviate the same ; notwithstanding their Endeavours, who in the Surprise, I suppose, mistook the Place of Compression, the Artery burst out afresh, and the Patient living out of Town, was exhausted before I or any other Help could come to assist him.

When the like Accidents happen in Wounds penetrating the *Breast* or *Belly*, if they light especially on the Trunks of the *Aorta* or *Vena Cava*, the wounded commonly die upon the Spot: Or if the smaller Branches, the Case is still dangerous, though even here it behoves us to lend what Assistance we can, keeping open the Wound, if it be so situate as to be of any Service in draining off the extravasate Blood, or serous Humour flowing into the Cavities; whilst the Physician prescribes some proper *restringent*, *agglutinative*, *vulnerary* Remedies, in the Form either of *Electuary*, *Pill*, *Powder*, *Potion* or *Apozeme*, as are most agreeable to the Patient's Palate; endeavouring at the same Time to contemperate the Fervor or Heat of the Blood, by some refrigerating *Emulsions*, *ex Sem. 4. f. Maj. Sem. Lactuce Papav. & Hyosciam. alb. in Aq. Hord.* cooling *Ju-laps* also *ex Aq. Lactuce Papav. Plantag. Sperm. Ranar.* edulcorate with *Syr. de Meconio de Nymph. Portulac. Limon.* or the like: In which Liquors may be dissolved ʒj. of the *Crystal. Min.* or *Sal. Prunel.* to ℥j. which potently encounters all inflammatory Disorders of the Blood, and bridles the raging Heat thereof: To this may be likewise added a few Grains of the *Sacch. Saturni*, much esteem'd by Dr. *Pitcairn* upon these occasions: But of the internal Prescription at these Times, and to answer such Intention, we have already discours'd, when taking Notice particularly of the *Wounds* of the *Breast*.

HIST.
lxxxvii.

A Servant Maid at the four *Swans* within *Bishopsgate*, by Misfortune thrust the sharp Point of a Case-Knife into her Wrist, which opened the *carpal Artery*, just above the Part where we usually feel the *Pulse*, to take the State of a Fever or other Indispositon; whence an enormous
Hæmorrhage

Hemorrhage ensued, in spite of all Endeavours of the Family to curb or check the same; the Artery forcibly spurting all the way she came along the Street to my House without the Gate; where happening to be at Home, I presently clap'd down a Button of Lint dipt in the crude Vitriol, over which several thick Pledgets, some strew'd with *Galen's Powder*, others larger, first press'd out of *Oxycrate*, and sprinkled thick with *Farina*, over which, lastly, a Compress of folded Cloth, dipt in the said *Oxycrate cum Alb. Ovor.* and a Bandage round the Wrist, suitable to the Occasion.

I then gave Directions, after the pinning up the Arm in a large Handkerchief, that she should be kept cool, still, and quiet, in order to which, that Night she took a Draught *ex Aqua Papav. ʒj. Syr. de Meconio ʒvj. Sal. Prunel. ʒß.* her Drink was *Milk and Water, Barley-Water*, in order to restrain the Heat, and inordinate Motion of the Blood, which was like to be rais'd by an Ebullition thereof, from the Pain and *symptomatic Fever*, with each Draught of which she took also a Scruple of *Sal. Prunel.* and a little Sugar: Her Diet was not to exceed *Water-gruel, Barley-gruel, or Panada.* I would have bled her in the contrary Arm, but in consideration of the great Loss thereof she had just before sustain'd by her Wound.

The Day following she found herself well enough to come to me again; when I contented myself with clipping a little way through the Folds of the Roller, to give Liberty on Account of the Tumefaction, rather arising from the Pain of the Escharotic, which held severe for some Hours after the dressing, than to the Overstreightness otherwise of the same: After which I em-

brocated both above and below on the Back of the Hand, which was also swell'd, *cum Oleo Rosar.* and pinn'd the Arm up as before. The like I did the second Day, being shy of taking off the Dressings, and finding no further Danger from the Fluxion, which was lessen'd by her Ease, and the Liberty given the Day before, for fear of disturbing the *Eschar* or Crust upon the Artery, by so early a Removal of my Dressings on the same; which however I now soak'd well with Oil, to prepare them for coming off with less Disturbance, when I thought fit to renew them, which was not till the fourth, when with all imaginable Caution I adventur'd; and lifting up the under Pledget, I perceiv'd, do what I could to prevent it, the vitriolate Button would give way therewith, but left a thick Crust underneath, which I could see rise up and subside, according to the *Systol* and *Diastol* of the Coats of the vibrating Artery; which gave me Reason to fear an Alarm, so soon as ever the *Eschar* was upon Separation, the Vessel especially lying so full in view, and unlikely to be incarn'd so suddenly as we wish'd and wanted. However, to secure it all I could, I laid down a pledget of dry Lint upon that Part of the Wound, and a Digestive of Liniment over the rest, embrocating the whole Hand and Arm as before, but with softer Compress and Bandage, making up again, and keeping her every Night to her *paregoric* and thin Diet as at first. Every Morning she took early a Morfel of *Lenitive Electuary*, which kept her Body cool, and in good Temper as to Stools, which I did the rather on Account of the *Anodyne* that would otherwise have render'd her over-costive.

Thus

Thus dressing once only in two Days, the Wound beginning to digest, we went on well for ten; the Crust yet sticking, but visibly, still rising and falling with the *Pulse*, the Tenor of which was here perceptible to the Eye, as in others it is apprehended by the Fingers Ends.

Being now in continual Expectation (on the poor Maid's Account) I left a more particular Charge with my Servant, that he might readily find me when from Home, if wanted: And on the eleventh Day, as I was at Dinner, she was brought into my *Surgery*, supported by two of the Servants, bleeding as at first. I was then provided of a small Phial of a *styptic* Water from Mr. *Edward Green* in *Newgate Street*, and pressing gently a Button dipt therein, held the same close down upon the Place, and instantly restrain'd the Flux, with less Compress than I had been forc'd to use before, and less Pain also than was occasioned by the Vitriol: Over which I placed the wonted Compress dipt in *Oxycrate*, covered with *Farina*, and rolled the Arm up again, pursuing the former Directions, and defer'd opening till the third Day, only embrocating daily above the Bandage, as also on the Back of the Hand, which began to tumefy again.

When I came to take off the Dressing, I found the Button sticking close, which I left on, and was not without Hopes, that having destroyed more of the Artery, and the same lying less in Sight than before, with a scarce perceptible Motion, we might now probably be more secure; yet upon *digesting* afresh the other Parts of the Wound, which were enlarged by the Salts of the Vitriol at first employ'd, encreas'd in Dimensions, and the Sloughs casting off together with the Button, which had been dipt in the

styptic Water, I could now again perceive the alternate Risings and Fallings of this new *Eschar*, with those of the Artery, though not altogether so strong as formerly, and then grew suspicious we might still have farther Trouble; which being willing to provide against, I desir'd the Assistance of Mr. *Henry Boon*, who at that time liv'd within few Doors of her Master's House, either in the tying up the Artery, or what other Method we should take at the time of the next Eruption; who gave me a Meeting at the same Place, where it was agreed to free me from farther Trouble, by getting her into the *Hospital*. However, before this could be enterprised (at least was so) the Blood broke out afresh, and the Wench was so exhausted thereby, before myself, or any one else could be got to her, that she fell into a *Deliquium*, though a Person of as undaunted Courage and Presence of Mind as I ever met with. Notwithstanding which, coming again to herself, the Blood continued jumping out from the Rupture, in spite of all their fruitless Trials, running down the Pavement, besides the Chamber-pots and Basons fill'd therewith, as also the Towels, Napkins, and other Linen they had, but without Discretion, applied round her Wrist, dip'd in *Oxycrate* before they were put on.

When I came into the Room I cleared away these bloody Clothes, and thrust a hard Button of dry Lint only to the Mouth of the Artery, pressing it so close thereto, with my Thumb upon it, that the Blood ceased any farther running down; when instructing one of the stoutest Persons as I thought in the Room, to take my Post for a few Minutes, in the mean Time I put a couple of Irons, brought with me, into the Fire.

Fire, if I should see Occasion for their Use: And being also provided with my Needles, and other the necessary *Apparatus* for making the *Ligature*, I sent for Mr. *Boon*, but word was brought, that neither he, nor two others they went for, could be met with: So that laying aside this Enterprize of tying up the Vessel for want of proper Assistance, I resolv'd to confide in the hot Iron; one of which taking out of the Fire, whilst the Arm was extended by a Servant grasping at the Wrist, and another below the Cubit, as she sate in a Chair against the Light, I order'd the Person who held down the Compress to lift up his Thumb, when the Artery spurting out, coming Sideways upon the same, I thrust it close up to the Aperture, and singeing it, turned it twice about, instantly thrusting up its Point: Then withdrawing, I found the Vessel so rotted with the former *Escharotics*, that though a seemingly sufficient Crust had been made outwardly, yet the Blood more faintly, & *sine Saltu*, still trickled through, so that intending now, if possible, to make sure Work, I took out the second Iron, and bringing the Heat to right Temper, by rubbing it on the Floor, clap'd its Point into the former Orifice, and pushing it up still farther and higher to destroy the Artery, made a kind of *Sulcus* an Inch high, turning it round as before, and drawing it out, when I perceiv'd only some few Drops distilling through the same.

The Work thus, as I had Hopes, completed, and my Patient with admirable Courage undergoing the Operation, I thrust in a Tent only of dry Lint into the cauteris'd Furrow, dressing the outside as a Burn with Lenients, or a Pledge of *Basilicon*, with equal Part *Liniment. Arcei*, and
a com-

a common Plaister ; then rolling up the Arm gently, she was put into her Bed.

So soon as I had finish'd, Mr. *Boon* came in, and acquainted me, he had made Provision for her being taken into the House next Day, which was done accordingly, but might now have been as well omitted, the Trouble being by this last Application ended : For at four Days end, he told me, they had taken off my Dressings, approv'd my Proceedings, and soon after heal'd the Breach as another Burn, without the least Disturbance from the Artery.

In a few Days after she came to return me her Thanks, and to acknowledge, as the Surgeons attending in the House had done, that the saving both her Limb and Life was owing to the fiery Trial she had undergone at my last dressing her. I was indeed well pleas'd at her Cure, which was the more satisfactory, and herein remarkable, that notwithstanding the Situation of the Wound among so many Tendons, in Danger as well from the *Escharotics*, as the hot Iron thrust up so high among them, she had a perfect good Motion as well of the Wrist as Fingers, neither Contraction nor Stiffness ensuing thereupon.

Some Time after, calling again to see me, she told me a pleasant Tale of a Passage happening under a short Sickness she was just recover'd from, in which her Mistress sending for Doctor *P——r*, when he came to the Bed-side, and going to examine her *Pulse* on the wounded Wrist, perceiving not the least Stroke of the Artery under the Skin of the *Carpus*, as she lay slumbering, he returned hastily out of the Room where she lay, and told her Mistress her Servant was out of any human Possibility of Recovery:
Upon

Upon which the Family running hastily up waken'd her, and wondring at the Doctor's *Prognostic*, before he was got out of the House, desir'd he would return, for she was now awake, and very hearty as they believ'd: Upon asking her how she found herself, and going again to feel that Wrist, she told him what had happen'd, and that she never could find a *Pulse* there since I had bled her; when taking up the other, he perceived he had made a rash Judgment, for want of farther Enquiry.

Much about this Time, a Corn-Chandler in the same Neighbourhood, coming home with a large Evening's Draught, and taking the Bottom of a Cheshire-Cheese, cut Boat-fashion, into his left Hand, with a Knife Spear-pointed in his right, as he was digging into the same, and laying great Strefs thereon, the Point slipt thro' the outer Coat, and entring between the little Finger, and that next to it open'd the Artery: Whence bleeding a long Time, notwithstanding the Family Applications, making at first sight of the Wound, I was called up to him, and thrusting up a Tent of Lint hard rolled, and dipt in *Colcothar*, with other dry Dressings over, Compress also in *Oxycrate*, rolled up the same: When after a Week's Time, and the exactest *Regimen*, like that prescrib'd before, it burst out afresh, and so successively for three Weeks, three several Times; till the Hand being much tumefied, and in Danger of *Gangrene*, the Wound still crude, and the Digestion spoiled by the repeated *Cathartics*, the Habit also *Cachochymical*, made the Accident, how trivial soever in its first Appearance, formidable in the Issue.

I would

I would have tied up the Vessel, and was once about passing my Needle for that End; but was oppos'd by the Patient, who would neither admit of that nor the Cautery; thinking a slight Cut, as he call'd it, stood not in Need of such violent Remedies; upon which, at the last bursting, I sent to Mr. *Blundel* and Mr. *Petty*; when we came to remove the Tent, which he himself had kept close in with his Fingers of the other Hand, till we were all met, removing the Compression and extracting of the same, the Blood as usual, leapt out by Jerks, although the Stream was small; and coming to examine the Part more narrowly, we found the Artery so rotten, that laying aside the Thoughts of the *Ligature*, we took a little Button Cautery, I desir'd my Friend Mr. *Petty* to bring with him, which was made for clapping into the *Alveoli*, to restrain a *Hæmorrhage* from the Extraction of a Tooth; which heating twice, and turning it about as often, after entring the same as high as was thought necessary, the Remnant of the bleeding Artery was so burnt up, that before the *Eschar* came away, the Extremity was incarn'd; and dressing up with Lenients, as the Wound digested, the Symptoms of Tumour and Inflammation about the Hand went off, and gave us no farther Disturbance.

And here I should have shut up my Discourse of Wounds, had not an Accident often attending some of those Parts, put me in mind of enlarging a little farther thereon.

It is observed then oftentimes, that in those, where an Artery has been punctured in its Coats, after Agglutination of the Wound in the Skin above, yet by Reason of the constant Motion of the said Coats of the Artery, the Wound there-
in

in does not consolidate, whence the Blood diffusing itself into the Interstices of the Parts about, raiseth a *Tumour*.

The like Accident may arise from the Point of a Lancet, when attempting to open the *basilic* Vein, the subjacent Artery is unluckily touched: Also from Blows or Falls, from the *Impetus* or violent Motion of the Blood itself, promoted by the Debility or Laxity of its Vessels. And hence most of our Authors have distinguished the Disease call'd *Aneurisma* into *legitimate* and *Of Aneurisma*, *spurious*, or *true* and *false*; the one arising inwardly from the Tunicks of the Vessel expanded and dilated in certain Places; the other from a Wound or Rupture outwards through the same, in which the extravasated Blood is lodg'd in the Interspaces of the Membranes round about, or near adjoining.

The *former* is denied by later Writers, particularly, I think, by Mr. *Wiseman*, who will allow, if I mistake not, of no *Aneurism*, but what is owing to a Violation or Breach made in both Coats of the *arterial Canal*, but by no Means of one in the inward, the outward remaining whole.

Whether this be so, may be disputable; but that a Tumour *aneurismatic* may arise from the Dilatation of both, is scarcely to be call'd in Question,

That the Coats of the *Veins* admit of being thus enlarged, we have daily Instances in the *varicous Tumours* of these Parts, especially some of those depending, as about the Legs and Thighs, the *Abdomen* of pregnant Women, also on the Verge of the *Anus* of those afflicted with the *Hæmorrhoides*: Fathermore in *icteric*, *hydropic*, and *bypochondriacal* People, or where the Liver is grown

scirrhus, and the Blood upon this Occasion denied its wonted Passage to the *Vena Porta*; at which times the Veins of the *Mesentery* grow *varicous*, and are found dilated in some Places to that Degree, that as *Morton* relates from *Guarmonius*, they were seen in a certain *Hypochondriac*, to represent *Intestines* rather than *Veins*. Now I cannot see why a *Varix* in some Degree may not be taken for a like Disease in the *Vein*, as the *Aneurism* in the *Artery*; and if the former, by a slow and equal Current, or by Stagnation of the Fluid from some Pressure or Rub in the way, when there is nothing but the mere *Pondus* of the Blood, is notwithstanding capable of such Enlargement; what Wonder, if we find the latter in some more lax or yielding Part of the *Canal*, much more distended by the Stream accidentally from some *Polypus*, or the like, meeting an Obstruction to its Career, where the Force is vastly greater, or the Impulse heightened by the *Vibration* which is incessant?

I once observ'd the *Subclavian* distended to almost the Thickness of a Child's Wrist, in which was contain'd such a Body of near the same Size, when *Nature*, which is more remarkable at these Times *Conservatrix sui*, had thicken'd the inclosing Tunics to a quadruple Proportion: What was observable in the Patient living, was a continual Palpitation, so loud as to be heard perfectly at some Yards Distance from the Bed-side; the Stroke so strong withal against the Breast-bone, as to throw off a four Pound Weight laid level thereon, with a Rebound, as it were, upon the Part, which it had beat out all round, by its surprising Thumps against the same.

An Example of like Nature the learned *Riverrius* gives us in his *fourth Century of Observations* in a Citizen of *Montpelier*, where the great Artery from the Heart to the *Clavicle* was found so enlarg'd by an *Aneurism* there form'd, as to admit a Hen's Egg into its Cavity; the Coats of the same being so thicken'd, as to appear in a manner *cartilaginous*.

All I would infer hence is, that the Tumour we call *Aneurisma*, may be contain'd within the arterial Tunics, or that the same are capable of such Distention, as to give Being to such like *Tumours*; and that consequently we may still retain the Ancients Division thereof into *genuine* and *spurious*, or *true* and *false*: Many of the former being chiefly troublesome by their Jar or Pulsation, and which for many Years, to the End of the Patient's Life, may happen no other way to incommode him, if seated especially in the smaller Vessels, or remote from the large Trunks of the same; whereas in the latter, from the Blood extravasate all round, a much larger Tumour is form'd, subject not only with the other to fatal *Hæmorrhage*, but to *Gangrene* also and *Mortification*, if not to be restrain'd, and thereby such Accidents prevented.

Somewhat of like Kind we see daily befalls the *Vein*, where, so long as the Blood is included within the Coats of the Vessel, as in the *Varices* before refer'd to, it will lie a long Time, even during Life, without other Inconvenience than its Knottiness, and Pain from the Stretch of the nervous Coat; yet being thrown out of its Channels, as in the *Echymosis* or large Extravasations, it must quickly be discharg'd, if incapable of being returned into the Parts it flow'd out of, lest it putrify or corrupt those it now lies
on,

on, which it is sooner apt to do than the other Extravasation; I mean the *arterial*, where the Blood is more spirituous, its Heat stronger, and the Motion of the Artery just by, contributing to prevent its *Grumescency*: But then we are also to observe this Difference, that as the *venal* Rupture is frequently cur'd by opening the Part, and discharging the extravasated Blood; so that of the *Arterial* is not to be attempted at all in many Places, and in none, without mature Advice, and an *Apparatus* ready at Hand, *viz.* a *Ligature* for tying up the Vessel, or a hot Iron to destroy it, with whatever may be farther requisite for the Work, and to secure your Patient's Life, at these Times often in Danger. And this leads me in a few words as I can, to give you the *Diagnos-tics* and *Prognostics* hereof, which some Writers take Notice of with the *Tumours*, but I design'dly in this Place among the *Wounds* of the *Blood-Vessels*.

Diagnostic. The *Diagnostic*, at least the Prime, and which Physicians call *pathognomonic* Sign of this Disease, is a perceptible Pulsation in some Part of the Swelling, more manifest, if the Artery lie near adjoining, the Tumour small and circumscribed, as in that from Dilatation, where the Vibration to be felt on the outside exactly keeps Time with the *Rythm* of the Vessel, giving Rise thereto; but if the Swelling be large, or great Quantity of Blood is thrown out into the Parts, as in that from some Rupture in the Coats, there may be less, if any Pulse to be observ'd, the Artery lying too deep or remote to be thus apprehended. Wherefore there is no Distemper incident to the Body, or indeed any Case offering in chirurgic Practice, that requires greater Sagacity in the Artist rightly to distinguish than this before us; since

since the Mistake carries along with it oftentimes a sudden and inevitable Death, either treating it with *Suppuratives* mistaken for a common *Abscess*, which increaseth the Malady; or after opening either by Caustic or *Incision*, when instead of the expected *Matter*, the Blood bursts out impetuously and destroys the Patient.

Whenever therefore (which may serve as a *Prognostic*) Guide for your *Prognostic*) any Tumour is presented to you which arose suddenly, as after Blood-letting or other Puncture, where there is room to suspect an Artery in the way, or although from an inward Cause, yet if seated near the larger Branches of these Vessels, as on the Temples, the Sides of the Neck or Wind-pipe, the Inside of the Arm or Cubit, the Thigh, Leg, or other Part of the Body, where the Swelling is of the same Colour with the Skin, giving back upon the Pressure of the Finger, but instantly returning; in these Cases, I say, though the *Pulsation* is not manifest, which yet is most commonly, be not too positive in delivering your Opinion, nor rash in the Undertaking.

As to the *Cure*, the *Aneurism*, at least which *Cure* I take the Liberty to call so, from Dilatation of the Coats of the Vessels, of long standing, and thereby confirm'd, is incapable thereof, and not to be attempted; but the other, or that arising from a Rupture through the same inwards, or a Puncture outwards, unless situate out of the Reach of Compression, as in the Neck and Throat, is capable oftentimes of *palliating*, sometimes of a *real Cure*.

The former is by restraining the farther Effusion, and driving back the Blood extravasate where it may be admitted into its Channels: And this is to be attempted by proper restrictive

Medicines applied to the Part, assisted with *Bolster* and suitable *Bandage*.

For this End, Compresses fitted to the Swelling, of fine Linen folded, are first wrung out of *Oxycrate* and the Whites of Eggs, then sprinkled over with *Farina volatilis*, *Bolus verus*, *Sang. Drac.* or the Potter's Clay softened with Vinegar of Roses, recommended by *Scultetus*, being spread on Cloth, and applied Plaister-wise, are laid on, and bound fast with a Roller: But these growing hard and dry, requiring often to be renewed, and the Bandage to be loosened, I should prefer some styptic Plaister, such as the Defensative compounded *ex Empl. Diapalm. Bolo vero Sang. Drac. Ol. & Aceto Ros.* and instead of the Roller, if for the Wrist or Arm, the laced Glove or Arm-piece: For the Leg or Thigh, the strait Stocking or Trousse, which bind more sure and equal than the others; besides these, where the Accident is recent, and the Tumour small, a particular Compress upon the Rupture in the Vessel is farther requisite; as the half of a Bean, Nutshel, or plumb-stone, the Convex inwards, which press singly on the Part streighter than may be allowable all round the rest, for fear of a *Gangrene* hazarded thereby.

The Author we last took Notice of, hath describ'd an Instrument for this particular Purpose of Compressing the Bleeding Artery; acquainting us farther, that at *Padua*, he knew an expert *Arteriotomist*, who, in violent Head-achs, did often by the Physician's Direction, open the *carpal* Artery, and by the Help of such Instrument, agglutinated the Wound, without any ill Symptom supervening; a Precedent, I think, scarce warrantable for common Practice, nor yet, if practis'd,

practis'd, more reconcilable, as a Remedy, to the Law of Circulation for a Complaint of the Head, than the more safe and equally serviceable Operation of *Venæsection*.

Joachim Camerarius acquaints us, that he practis'd *Arteriotomy* with Success, in Complaints of this Kind, as did also *Gesner*, making as light of dividing the *temporal Artery*, as our Surgeons do the opening of a Vein.

Remarkable upon which Account is the Story of *Thaddeus Dunus*, in the 12th Chapter of his *Miscellany*, where he informs us of one *Felix*, a Surgeon of his Acquaintance in *Tiguria*, a bold Man, saith he, who labouring under an insupportable Pain on the left Side of his Head, impatient thereof, opened the Artery himself on the pain'd Side, and suffer'd three Pound of Blood to run out; but finding his Pain still to continue, he call'd in (saith the Relator) myself and *Gesner*, commanding us first of all to make a semicircular Incision, taking in both Vein and Artery quite down to the Bone, upon which the same immediately ceas'd; otherwise the Circle was to have been completed, and the Piece taken out, by which the said Vessels being dissected, he doubted not his Relief founded, probably, on the Saying of *Cornelius Celsus*, *Quos ratio non restituit, Temeritas fere adjuvat, quod in Morbis contumacibus (inquit ille) & deploratis non raro evenire videmus*, of which you will find more in *Parey Lib. 16. Cap. 4.* as also in *Severinus de Med. Effic.*

For want of this Instrument, he tells us he has sometimes us'd a Peach-stone upon a Compress against the Wound; and in *Switzerland*, he says, they bind down the convex Part of half a Walnut-shell.

And thus much for the palliative Cure, which by good Management of the Surgeon, and the Patient's regular Conformity to his and the Physician's Prescriptions, for contempering the Heat and Acrimony of the Blood, frequent emptying of the Vessels to abate their Plenitude, and make way for a return, with the like *Regimen*, as in *Hæmorrhages* has been already observ'd, oftentimes succeeds so far.

But this not availing, or not practicable, as where there is great Extravasation, and the Flux has already broke its Boundaries, by which the Patient is in imminent Danger of his Life; the *real* or true Cure is to be attempted, which consists in laying open the Limb, till you discover the Breach in the bleeding Artery, which having found, you are carefully to separate, so as that you can come to pass your Needle threaded for the Work under the same; first above the Rupture therein, which having tied close, and cut off the Ends of your Thread, you are, in like manner, at half an Inch, or an Inch Distance, to make another Ligature below; and to divide the Vessel betwixt these Ligatures; or, as others, but not so rationally, leave them undivided.

The Operation thus far performed, and the Wound cleans'd of the Blood; the Ends of your Thread secur'd on the Outside, you are to hasten the Digestion and Incarnation as in other Wounds of the fleshy Parts; the Ligatures after some Days falling off themselves, leaving the Ends of the Vessel now cover'd with Flesh, and out of Danger, the Blood taking a Passage through other side-way communicating Branches, when it finds the direct one thus block'd up.

Our Countryman Mr *William Cowper*, has inserted two Cases of this Kind among the *Philosophical Transactions*, with the following Preamble, which for your farther Satisfaction therein, I shall here transcribe.

‘ When the Artery is prick’d in letting Blood,
‘ and makes an *Aneurism*, the Trunk thereof must
‘ be bared, and firmly tied above the same, when
‘ it after happens (as has been frequently known)
‘ that the Flux of Blood to the *Aneurisma* in
‘ the Artery is not very much abated, though
‘ the Artery has been tied above, the Operator
‘ in that Case must make another Ligature on
‘ the Trunk of the Artery below its *Aneurism*:
‘ These collateral Communications of the Trunk
‘ of the Artery at the bending of the Cubit,
‘ preserve the Circulation of the Blood in the
‘ Cubit and Hand, though the Trunk is totally
‘ compress’d both above and below, and the same
‘ Trunk afterwards divided between those Liga-
‘ tures. Hence it is, if one Ligature made a-
‘ bove the Wound in the Artery is not sufficient,
‘ but the Blood still pours out from below, the
‘ Patient will sooner recover the Action and
‘ Strength of the Muscles of the Cubit, than
‘ those in whom the upper Ligature proves suf-
‘ ficient; the Reason of which is obvious to any,
‘ who consider that the communicant Branches
‘ must be larger where the lower Ligature is re-
‘ quir’d, than when the superior Ligature only
‘ is sufficient.

At the same Time he presents us with a *Plan*, not only of the Trunk of the Artery, but its communicant Branches also, in his *Scheme* hereunto annexed; but to go on with our Author’s Words.

‘ While these Papers (saith he) were lying by
 ‘ me, the two following Instances happen’d, in
 ‘ which the Communications of the large Trunks
 ‘ of the Arteries of the Cubit and Arm, were re-
 ‘ markable.

HIST.
 LXXXIX.

‘ A Boy about thirteen Years, about three
 ‘ Weeks before I saw him receiv’d a Wound
 ‘ near the middle of the Cubit, in which the
 ‘ Trunk of the Artery was divided. The Sur-
 ‘ geon who was first call’d had frequently bound
 ‘ up the Wound, and put a Stop to the several
 ‘ Discharges of Blood (which, they told me, did
 ‘ not amount to less than six or seven Quarts,
 ‘ at Times) but not without a Compress on the
 ‘ Trunk of the Artery above the Wound. On
 ‘ another impetuous Flux I was call’d, but see-
 ‘ ing no small Quantity of Blood discharg’d, I
 ‘ was contented to let the Wound be bound up
 ‘ in the same manner it had been done before,
 ‘ omitting the Compress on the Trunk of the
 ‘ Artery above, and adding a piece of Deal
 ‘ Board, on which the Hand and Cubit were
 ‘ fasten’d, to prevent any Motions of those Parts,
 ‘ as well as the Fingers; Three Days after the
 ‘ Applications were taken off, and little or no
 ‘ Blood appear’d; but two or three Hours were
 ‘ scarce elaps’d, e’er I was alarm’d with Notice
 ‘ of a fresh Flux; the By-standers being instruct-
 ‘ ed in that Case to compress the Trunk of the
 ‘ Artery above the Cubit, had thereby prevented
 ‘ no small Effusion of Blood, which must other-
 ‘ wise have happen’d. His Surgeon being out
 ‘ of the way, I laid the Trunk of the Artery
 ‘ bare above the Wound, as expeditiously as I
 ‘ could, being forced, more than once, to let
 ‘ loose the Compress above to discover its Ori-
 ‘ fice by the Flux of Blood. I pass’d a Needle
 ‘ with

‘ with strong waxed Thread under the Artery,
‘ and made Ligature on its Trunk (which lay
‘ conceal’d in the Interstice of the *Musculus*
‘ *Flexor digitorum*, and the *Musculus Ulnaris*
‘ *Flexor Carpi*) but notwithstanding this Liga-
‘ ture on the Trunk of the Artery, above the
‘ Wound, the Blood still flow’d from the lower
‘ Trunk of the divided Artery, yet the Velocity
‘ of its Current was so much abated, that it
‘ seem’d like Blood flowing from a Vein: I left
‘ the Wound with a Digestive, and the Part
‘ without hard Bandage, it being now five
‘ Weeks since I hear the same is almost cica-
‘ tris’d.

‘ A Boy eight Years of Age, came to Town
‘ with an *Aneurisma* on the left Arm, upon
‘ bleeding six Weeks before; the Tumour was
‘ indeed very large in proportion to so small an
‘ Arm. After laying the *Aneurisma* or Tumour
‘ bare, and making Ligature on the superior
‘ Trunk of the Artery, I found, on loosening
‘ the Compress above, very little Abatement of
‘ the Pulsation of the *Aneurisma*: I then pass’d
‘ a Ligature in like manner on the Trunk of the
‘ Artery below the Tumour, but notwithstand-
‘ ing the Pulsation continued, though much
‘ abated: I then discover’d another Trunk of the
‘ Artery arising from the lower Part of the Tu-
‘ mour, on which I also made another Ligature,
‘ and the Pulsation was then taken off. However
‘ on cutting off the Surface of the *Cystis* or di-
‘ lated Artery, and clearing it of the coagulated
‘ Blood, there still poured out some fresh Blood,
‘ which was soon stopt with a common Restrin-
‘ gent; I left the Part without any other Liga-
‘ ture or hard Bandage. It is now eighteen Days
‘ since the Operation; the Ligatures on the Ar-

teries are all come off, and the Pulse of the Artery at the Wrist begins to be very manifest, nor does any Symptom appear that threatens Success: He has since recover'd the entire Use of his Arm, and is in perfect Health.

This Case I find set in a different Light by a late learned Man in his Dissertations, where it is termed *Victima Aneurismatis*; yet at the same Time he owns the Patient came off *Incolumis*; as if such an Operation could be performed without a symptomatic Fever, in which (as he represents it) the Danger consisted.

In enterprising thereof, it is necessary you apply the *Torniket* to restrain the Bleeding for the Time, that would hinder your Work, as for *Amputation*; when having laid the Vessel bare, and cleared away the grumous and other Extravasation, you may slacken, so as may direct you to the Place of the Rupture, which being found by the spurting out of the Blood, you again straiten, till you have made your Binding, and finish'd the same.

Barbet calls this Operation, *Periculosa, dolorifica, laboriosa, nec non exiguae saepe Utilitatis*, and declares, he would sooner dismember the Patient, than put the same in Practice.

It must truly be acknowledg'd a Task neither void of Difficulty, nor yet of Danger, requiring more Time than cutting off the Limb: But if the Odds be no greater against the Patient's Life by the former than the latter, as I think it is not in many of these Cases; yet has it this farther unspeakable Advantage of retrieving not only the Limb, but as good a Use also thereof as before, of which he must be deprived in the other. I was once, and only once, concern'd in the Operation

ration below the *Cubit*, with Mr. *Babington*, upon the like Accident, as happened at the four *Swans* already just before describ'd, which was attended with good Success.

Severinus informs us, that the *crural* Artery it self, and that too very near the Groin, being open'd and torn by a Musket-Ball, Incision was made of the Muscles, in order to come at the Vessel, and tie up the same, and that having open'd the Part, *Seignor Trullus*, who was the Operator, took out above six Pound of grumous Blood; yet the Work happily succeeded, and the Patient perfectly recover'd his Limb in six Weeks Time, having bled prodigiously for thirty Days before, and was reduc'd exceeding low, as well thereby, as the putrid Fever and other Symptoms attending: A History truly remarkable, and worthy of Record to future Ages.

And here I would give the young Practitioner to understand, that a sound Judgment and a steady Hand, are absolutely requir'd at these Times, as well as in all other Operations of like Nature; for there is somewhat more Trouble than in ransacking a Bundle, to find a Piece of Packthread, which having found, to tie two other smaller on any Part thereof, at an Inch or two's Distance, than cutting off the Ends, or dividing the bound Thread in the midst of the two Tyes. Excuse me, Gentlemen, you know, doubtless, what I mean by this rude *Simile*, that the Undertaker ought to be a dexterous Knives-man, or *Anatomist*, both *Myotomist* and *Angiotomist*; not only expert in muscular Dissection, but in the Situation or Course of the Blood-Vessels also, the Study and Practice whereof I so earnestly press'd upon you in my last Section: So that I shall now shut up this perhaps over-lengthen'd one, with
the

the following short Advice, *viz.* That in the Cure of all Wounds whatever, or wheresoever situate, you are not only to consider your Patient's Temperament and way of Living, but whether the same are not complicated with some other Distemper, as the *Scurvey*, *Dropfy*, *French-Pox*, &c. without regard to which, in a physical Administration to lend your Assistance betwixt whiles, you will find, oftentimes, some seeming inconsiderable Accident will foil your Labour and utmost Endeavours, rendring the best of your *Topics* ineffectual.



Some



Some modest ANIMADVERSIONS on
Dr. HARRIS's *Dissertationes Me-*
dicæ, especially his thirteenth, de
Erroribus Chirurgorum.

Gentlemen,



IN this Edition of my *Art of Surgery*, was just going to the Press, there came to my Hands a Treatise, newly publish'd by Dr. *Walter Harris*, which he entitles, *Dissertationes Medicæ & Chirurgicæ, habitæ in Amphitheatro Collegii Regalis Med. Lond.* wherein, towards the Conclusion, I find his thirteenth *Dissertation* is taken up, in declaiming against the *Errors* of the *Surgeons*.

I must own I was somewhat startled, to find so learned and so good a Man, inveighing in such a publick manner, against a *Body* of others, who are scarce equall'd for the same *Learning, Probity* and *Ingenuity* in their *Art*, by any Nation upon Earth.

The Charge against you seems to be made up of three principal Parts. The first is *Ignorance*, a very gross (but surely undeserved) one, in the Discharge of your *Profession*, or not taking the right Method of healing your Patients Maladies; some of which, he tells you, he remov'd by very simple Means, when two of the prime Men
among

among you had pronounc'd the same *incurable*; of which Kind he gives you two Examples; the one in a *cancer'd Breast* of Mrs. *Harding* at *Hampstead*, where the worthy Man Mr. *Blondel*, together with Mr. *Brown* belonging to the Guards, had given Sentence as above; which Cure he effected by giving the Powders of *Lign. Sanct. Sarsaparil. & Santal. rub.* in fair Water, three Times a Day, and ordering the Breast to be wrapt up warm in Flannel.

The other is of a Surgeon (*who, or what a one, we know not*) that kept a poor Servant Maid a Year and half in Hand, thrusting a long Tent into an hollow Ulcer on the Foot, till a *Gangrene* threatn'd, and an *Amputation* was like to follow, had not this good *Samaritan* pour'd Oil and Wine into the Wound, and rescued her in three Weeks Time from so imminent Danger.

Now as to the first of these, I can only say, that the Prognostics of Diseases, however seemingly desperate, are to be made with the utmost Caution, since the most knowing and understanding Men among us, both *Physicians* and *Surgeons*, have been mistaken in their Judgments upon the Sick as well in Regard to the *Disease*, as its *Event*.

If this was a true *Cancer*, as doubtless believ'd so to be by the *Surgeons*, and cured by the Powders of *Lign. Sanct. &c.* how comes it this good Man so long with-held the *Secret*, for a Distemper we none of us know how to grapple with? or if *Specific* thereunto (and not prescrib'd at Random) how is it that we have only this single Example of Success? Or that so many miserable Objects are yet moving us with their dismal Complaints, amidst a Glut of the *holy Wood* that every where surrounds them?

About

About thirty Years past, I remember a poor Man turn'd out of the *Hospital* as *incurable*, with old Sores upon his Legs, which at long-run, as we say, were dried up by some simple Applications of an old Woman; upon the Noise of which, great Numbers of People under the like Predicament, at least, as they believ'd themselves, resorted to the same *Doctress*; but I never heard that she could brag of any more than this one casual Exploit, the rest growing still worse, and after long Time, returning whence they came, or applying to a more rational Method of Cure.

I have instanced in the preceding Discourse, where a simple Plant consolidated a Man's Nose, which had been near cut off; and in my *Supplement*, you will find a desperate Wound into the *Stomach*, where the Patient was left as past Help by the Physician, yet the same healed up by a *Gallemaufrey* of I know not what bruis'd Herbs, directed at Adventure, doubtless, by some ignorant People; both certainly agglutinating by *Euchrafy*, in great Measure, or the Means of a *homogene, balsamic Blood*, rather than the Remedy, which, possibly, had been absolutely ineffectual, if not detrimental to one hundred of others, trying the same Experiment on the like Occasion; so that from such Result as this, to cry out, *Sic Numini Supremo placet, simplicibus & innocuis auxiliis, aliquando benedicere*, would have served the most irrational Experimenter, or whimsical *Enthusiast*, taking the Office of Physician or Surgeon upon him, without Knowledge, even of the Rudiments of those Arts, by way of Justifying their Proceedings; and surely, had better become them, than a learned and grave Doctor of Physick, who knows well, that to administer any Remedy, without forming a *Rationale* on the

the same, or disregarding how, or in what manner it is to bring about the End of its Administration, is becoming only *Mountebanks* and old *Women*, who apply, as they say, *Hap nab*. We are far from finding Fault with *simple Medicines*, believing them, generally speaking, the best; but surely, we are not to think the better of such as are so very innocent as not to hurt us; or prefer them to others, we have more Reason to believe will do us *Good* also.

As to the second Example, I think the Doctor had done well to have given us at least some *Note*, that we might have known what kind of *Surgeon* he was, who had cram'd those unreasonable *Tents* into the Maid's Foot, that, in Justice, the Shame and Disgrace might have redounded where it was due.

Had he read our *Art of Surgery*, Vol. 1. Sect. 5. p. 43 i. he would have seen we are as much against this preposterous Practice of *tenting*, where Necessity calls not for them, as in some of those Cases he himself enumerates, and so are all the noted Practicers here in Town, as he can wish for; so that his recommending Monsieur *Belloste* as justly inveighing against them, was altogether needless; Nor do our *English* Practitioners stand in need of that Translation, if they had it not. It was truly a Caution very necessary to have been given to his own Countrymen; who by their *Tents* and *Injections*, from what we have seen of their Practice among us, have done more Mischief than any People I have heard of.

Had this learned and devout Man been rightly, I say, acquainted with the Practice of the best Artists among us, he would easily have seen, that instead of choaking up their Wounds with *Tents*, and damming in the Matter that should have

have a ready Issue out, if they can't obtain Agglutination thereof, by the milder way of *Compress* and *Deligation*, they are immediately for laying their Work in View, where it can be done with Safety, and thereby instead of protracting, expediting the Cure; which will bring me to the second Part of the Charge against you, laid down by this good Man, viz. that you are *cruel and hard hearted*.

This he proves from your cutting off *Mens Legs and Arms*, boring *their Skulls*, and burning *their Flesh*, with other the like dreadful and severe Usage of your Patients.

To part of which, I know, Gentlemen, you must plead guilty; but, I hope, and doubt not in the least, the Motive you go upon will be justified, if not in this compassionate Doctor's, yet in the Sight of God and other good Men.

To back this Accusation, he brings the Example of *Guido de Cauliaco*, whom he sets forth as an *honest and merciful Surgeon*, for that in his whole Life Time he would never dismember a Patient, let the Occasion be never so great, choos- ing rather to wrap up the mortified or perished Member in his *Sparadrap*, and thus *embalm* his Patient whilst alive.

This our Physician thought rare in a *French Surgeon*, who seldom wants Boldness, or is sparing of his Knife; and believes it either proceeded from an *Humanity* uncommon to the *Faculty*, or a religious Awe upon his Mind, with-holding him therefrom; for Confirmation of this, he quotes the following from *Guido* himself. *Honestius est Medico, quod cadat per se membrum Gangrena affectum, quam si incidatur vel amputetur, semper enim quando inciditur, remanet Rancor, aut Simultas,*

Simultas, & Cogitatio in Patiente, quod posset remanere Membrum abscissum.

But surely, the Rule you are to go by in performing any Operation, where a Person's Life is in Danger, is not what he shall think of the same after, but what you think thereof at *present*; together with other able Artists call'd into Consultation, who after mature Deliberation, believing in your Consciences, or according to the best of your Judgments, there is an absolute Necessity for the Work, in order to save the Patient's Life : It is neither his nor the World's Censure you should regard, but the Discharge of your Duty. If it be the Choice of the Sick to die thus Piecemeal, or to rot, as we say, alive, you are to forbear pressing upon him, let him have his Choice; but if he desires Life upon any Terms, and you know of no other than by the cutting off a Limb, you are to proceed in God's Name, and will be, doubtless, justified at his *Tribunal*. What if your Accuser is able to bring some far-fetched Instance of a Person recovering that Limb which had been doom'd to the Knife and Saw by some unexpected Turn in the sick Man's Favour, not to be foreseen, how many Scores to his one can you not produce, of such, as through Fear or Obstinacy in opposing, have been lost, who a little before had this way a more than equal Chance for Life? And how many cannot you produce that have escaped thereby?

Before any Thing of this Nature is enterpris'd, the sick Man has his Choice, and it is an old Maxim, *Quod volenti non fit Injuria*.

To the Honour of your *Corporation* it may be said, you have an excellent *By-Law*, that not so much as a Finger or Toe shall be taken off; without

without some of the *Ancients* of your Company first consulted and being present; which was excellently well intended, that no private Practitioner, how full soever of his own Knowledge, should maim or dismember the meanest Subject, without due Consideration had thereto, and proper Assistance or Help call'd in; and surely, it is no small Happiness to every Nation, as it has been the Preservation of many a brave Man's Life, that whilst some through *Pusillanimity*, *native Timidity*, or want of *Courage*, are not qualified for the Works of this Nature, others of greater *Fortitude of Mind*, and *Judgment* suited thereto, are ready to perform them; who instead of being treated with *hard Names*, deserve the greatest Honour, especially where right Reason has been the Guide to their Actions, and to the utmost of their Abilities, in the Discharge of a good Conscience, they have acted for the Interest of their Patients, in such their Undertakings.

‘ When *Archagathus* (says this learned Doctor)
‘ came first to *Rome* from *Peloponnesus* for the sake
‘ of Practice, the *Romans* (as *Pliny* observes) were
‘ very courteous, receiving him honourably, and
‘ conferring on him quickly after their *Jus Qui-*
‘ *ritium*, giving him the Title of *Vulnerarius*,
‘ the Healer of their Wounds, an acceptable
‘ Guest to those warlike People; but so soon,
‘ saith he, as ever he began to *cut* and *burn* them,
‘ he lost their good Opinion, and his Name was
‘ strait alter'd for that of *Carnifex Sanguinolentus*,
‘ the *Bloody Butcher*, when they report him not
‘ only expell'd *Rome*, but ston'd by the *Popu-*
‘ *lace* without the Walls, after the old Custom of
‘ the *Jews*.

And what, I pray you, must we infer from this Relation? I hope this Physician is not desirous that our *Hospital Surgeons*, our *Trepanners*, *Rupture* and *Stone Cutters*, should be thus serv'd; no, I dare say, he is too good a Christian, he is too good a Man. But having given this Character of a *mild* and *merciful* one to *Guido*, no Wonder he should fall foul upon *Severinus*, whom he farther acquaints us, either ignorant or unmindful of the Fate of *Archagathus*, near the same Place, at least not far from *Naples*, published his *Pyrotechnic Surgery*, allowing *Guido* to be no other than a *Physico-Chirurgus*, not absolutely *Chirurgus*, because he would not practise by *Fire* and *Sword*; on the former of which Words he (I mean the Doctor) is pleas'd to make a *Comment*.

It were tedious here to pursue this Gentleman's Discourse farther upon this Head, and therefore I beg leave only to put this serious Question.

What must become of those miserable Wretches we see daily perishing in the midst of their own Stench and Putrefaction, crying out for Help of any Kind, so their Lives may be but spar'd, yet are to be denied the same? What of those, continually rack'd and tortur'd by the *Stone*, or from their Bowels fallen down, and strangled in the Rings of the *Processus Peritonæi*? What of those, the broken Pièces of whose Skulls lye pricking the tender Coverings of the Brain? Or where this last is delug'd by Blood or Matter, having no vent to be discharged? What of those, whose Strength is daily exhausted by *Fistula's* and *carious Ulcers*, or from Effusions of their *Life*, the *Blood*?

Why,

Why, to all this, our Christian Philosopher replies, *Let them wait their appointed Time*, and die like Men: Let them rejoice that they are shortly going to meet those brave Men, *Cicero, Socrates and Cato: Aristides, Antoninus, Epictetus*, or the ancient Patriarchs, *Moses, Elias and Abraham*. But suppose, dear Doctor, these poor Creatures, some of whom possibly never heard of this good Company, are not so well prepar'd as yourself, to sing forth a *Nunc Dimittis*, or *O Præclarum Diem*—but by an ill spent Life, have more Reason to fear they may fall in with *Dives, Heliogabalus, Nero, Domitius, Phalaris, Julian the Apostate*, or his Brother *Judas*, and are dispos'd to take the *Tempter's* Advice, rather than your's, *viz. Skin for Skin*, to which I may add, *Limb for Life*, rather than lay down the same at present, if it can any way be avoided. Such as these may be, I hope, allowed to undergo a little *temporal* Fire, and who knows, but by Amendment of their Lives under the Rod, they may escape the *eternal*? Or is this *Lecture of Mortality* read to us, or of the *Contempt of Death*, that these miserable People should follow the Example of some of those he has here mention'd, and *make away themselves*? No certainly, the good Man knew too well, how inconsistent soever the same might be with *Ethnic*, it is not so with the *Christian* Principles.

But I now hasten, Gentlemen, to your last Charge the blackest of all, and indeed if it could be proved, instead of being admitted yourselves hereafter into the Society of *Saints and Angels in Heaven*, the *Devils in Hell* are surely to be your Company; mistake me not, I mean such, against whom this Charge as aforesaid can be made good, which this Gentleman supports chiefly

by the Tale of an *Apparition*: I hope for yours, but much more the poor Man's Sake concern'd immediately therein, it is no other than a *Grub-street Ghost*: I'm sure by the Narrative, we are not like to have one *Sadducee* the less for it. The Story is this.

That about twenty four Years past, Mr. W—— near Moregate lying on his Death-bed, the Apparition of a poor Man stood by him, whom he had designedly kept in Hand for a long Time, with an Ulcer on his Leg, which said Ulcer, he owns (before the Face of the Ghost and the By-standers) for a few Pence, he could have healed; but being employed by a wealthy Lady to look after this poor Man, (and not having the Fear of God before his Eyes, but tempted by the cursed Mammon) he kept the said Pauper so long, that the Leg at length was forced to be cut off, of which this poor Man (whose Ghost, you must understand, stood by all this Time) died, and left a Wife and four Children behind him.

This being the Sum of the Story, I shall leave it to your farther Enquiry; who this Mr. W—— was I know not, nor do I remember any one with that initial Letter near that Place or Time, that had any rightful Claim to practise this Art, or Title to the Profession. If the Fact be true, it is most certain, as he must have been the *Devil of a Surgeon*, he is gone to the *Devil* for so vile an Action. But these Relations I have observed upon Enquiry, to be generally found mere *Fictions*, or in plain Words, *arrant Lies*, either forg'd by ill-designing Neighbours out of Malice, improv'd by superstitious People, or printed merely to amuse the Populace, and get a penny by them; so that a Man ought to be well satisfied of the Truth of Circumstances, before

before he so much as whispers them about, and not to raise *Chimera's* out of his own or other People's Brains, report the vague and inconsistent Jumble of a *Delirium*, or listen to a *second*, if not a *third Hand* Rumour of some spiteful or whimsical old Woman, and stamp them with the Authority of an *Eye* or an *Ear-Witness*, which I believe the Doctor never was of this; and therefore I must needs question, if he is not the first of that learned Faculty that has brought upon the Stage the Story of an *Hobgoblin*, to bespatter a Society also of great Learning, (many of them) Probity, and sound Judgment.

A second Instance he brings of Mr. R———
B——— I believe he intends R———d B———
a Person since deceas'd, but known to you all when living; who, he says, advis'd a Gentleman to have a *Cancer* cut from his Tongue, and whilst he was going upon the Operation, whisper'd the By-standers, that he never perform'd the same but twice, and lost both his Patients.

Now whatever Construction the Story of the *Spectre* may admit, I mean in making the most of it, this of Mr. B———'s will allow a milder than seems to be put on it. If Mr. B——— told the Patient he must in all Appearance die, and that very miserably of his Distemper, if somewhat was not attempted by the way of Extirpation, whether by *Knife* or *Fire*, and that he had no other way a Possibility of his Cure: Herein, I say, Mr. B———'s Integrity might be unblemish'd, and his Judgment also, more especially if the Patient, upon mature Deliberation, was desirous (as probably he might) to stand such a Chance rather than linger on in his deplorable Condition. As to the whispering that two others had miscarried in his Hands under the

same Operation, it surely was an Act of Indiscretion; but admit they had, if others had fared better, as sometimes happens (I wish I could say often) under the like Attempt by others, and that he believ'd conscientiously he could serve him no way else, the Enterprize surely was not criminal, in as much as he did what lay in his Power; and, doubtless, as every Operator ought, either directly to the Patient himself, or to Friends and Relations, let them know the Hazard, as well of the intended Remedy, as of the Disease intended to be thereby subdued, when he has a free Choice to die certainly by the one, or take the Chance, however still uncertain, to escape by the other. But as to this particular, I think, enough.

A farther Support to this Charge is, that you not only ignorantly, as I have already remark'd but designedly practise the Use of *Tents* in *Wounds* and *Ulcers*, on Purpose to protract your Cures, and enhance the Value thereof, by which you keep poor Wretches a Year or more under your Hands, whose Maladies might be healed up without those *Tents*, in a tenth Part of the Time; and by this, it seems, you maintain your *Equipages*, and ride about the Streets in your *gilt Chariots*, that a Man of Probity in the Profession is *Rara Avis in Terris*.

Had this Invektive been levelled against the *Pseudo-Practici*, so numerous in this City, calling themselves *Physicians* and *Surgeons*, but who have no right to be so called, this good Man's Time and Labour had been well bestow'd; but when he reflects upon those, who, let their Principles be as they will, it is their Interest to get their Patients well as soon as they can; upon such as are as much against this shameful Practice of
Tents

Tents upon all Occasions as himself, choos^{ing} rather, as I before took Notice, to have their Work in View, and repair the Breach forthwith: When he reflects upon Men, who measure the Value of their Cures, not by the Time of their Attendance, but the Greatness thereof, who are so far from want of Business, that they have not Time, some of them, to attend one half of what presents, this Artillery is surely directed wrong, and, doubtless, cannot reach the Mark.

The last Part of the Charge I shall speak to, seems to bear hardest upon the *Surgeons* of the *Fleet*, although the good Man is jealous the same Villany is acted on Shore: I mean, that either for the Lucre of five Pounds a Limb allowed by the State, which I am fully satisfied is a vulgar Error, or for that instead of keeping them long in Hand (for now it seems as if the Tables were turn'd) or lastly, to save the Trouble of looking longer after them, they cut off those that might be saved: And to prove this the height of Wickedness, as who can doubt it, we have the following Passages. *Quod si amputationes Membrorum fiant sine Necessitate Urgente* (you see however there may happen to be *Necessitas*) *in Ulceribus aut Vulneribus curabilibus, Lucri (scil.) Causa vel ad Molestiam diuturniorem evitandam, scelestum est, & inhumana amputatio.* And again, *Nimiam audaciam, sive temeritatem, sive feritatem immanem, plurium Chirurgorum, reprehendere fas est: Qui petulanter, & sine Necessitate, urunt, secant, laniant inhumaniter, seu ad molestiam aliquam diuturnam evitandam, seu insolentia elati, seu ad Lucellum commodius corradendum.*

These, Gentlemen, are Accusations brought against you, not by an *old Woman*, for then you might have overlook'd them, or imputed them

to the Prejudices, those shallow Pople, for want of knowing better, as we say, have taken up against the Profession in general. When I practis'd myself, I have had twenty such, who would tell me, If I made haste and cured them (believing I could do that at Pleasure) I should have the same Reward, as if I kept them long Time in Hand; which I thought so palpable a Reflection on my *Integrity*, that I always turn'd them away with Contempt, nor would I have any Thing to do with them, how large soever their intended Recompence might be; for if Matters had not gone to their Minds (and which of you can warrant a cut Finger, or a broken Shin in some Habits of Body, from bad Accidents?) I was sure to be suspected by such, let me do all I could. But I forget myself, the Charge is here laid against you by a learned Gentleman of the *College of Physicians*, and that in their *publick Theater* also, not by a common Person, but by a worthy and good Man, pretending at least to *Theory*, but I believe, little conversant in the Practice of your Art; so that to set yourselves right, not only in this Gentleman's good Opinion, but in that of the whole Kingdom, who from some Expressions he has, I think, undeserv'dly let fall, in these his now *printed Lectures*, it will behove you to justify yourselves, lest (if I may borrow his own Words) *Rudes & Ignari, cum Doctis & Probatis confundantur, & Peritis, Imperiti commisceantur.*

As I have formerly been a Member of your Community, and had for more than twenty Years, a thorough Knowledge of the principal Practitioners of the same Art, many of which are yet in being, I can call God to witness, that although to my great Concern I have seen Limbs
taken

taken off, which through ignorant Management of some, calling themselves *Surgeons*, and being so accounted by the People though esteem'd of no Repute among us, have been brought under this Necessity to save Life: Although by the injudicious Practice by *Tents*, and other as ignorant Treatment, I have known trifling Accidents become formidable, as this learned Gentleman observes, and perhaps a Year's Work made, of what, if artfully handled, had been healed in few Weeks: Though by these Means, I say, I have seen many People ruin'd and undone, maimed in their Limbs, if not fool'd out of their Lives; yet from Men of the most abandon'd Principles, exercising the same Function, I never was privy to, or acquainted with any thing of this Kind, practis'd by *design*, or for the sake of *Lucre*: And I doubt not, Gentlemen, in order to take off this Calumny, from every honest and legal Practitioner of this noble Art, you will join with me in the following *Commination*.

Is there any Man among you who has delayed a Cure out of these wicked Views, has kept his Patient a Month in Hand, whom he could have healed in a Week's Time?

Is there a Man among you who has thrust a Tent into any hollow Wound or Ulcer, with Design merely to keep the same from healing, when it was not some other way, at least as he thought, for his Patient's Advantage (as may happen) and not his own, or in other Words, when he believ'd in his Conscience the same, without Detriment of any kind to his Patient, might be suffered so to be healed up?

Is there a Man among you who has cut, burnt, or used any severe Remedies to his Patient, whose Expectation of Cure, he could as suddenly, and as well

well have answered, by a more easy or gentler Method?

Is there a Man among you, who, when the Patient's Wounds or other Sores have been in a way of healing, has applied any Medicament designedly to keep back the same (unless as above, where the Condition of the Sick might so require, and of which he is appris'd) with intent by such Delay, to take Advantage in his larger Demands for Attendance upon such Cure?

Is there a Man among you who hath cut off either Finger or Toe, much more an Arm or Leg of his Fellow Creature, which he knew he could have saved, so as to have rendered any way useful rather than burthensome, however with more Trouble to himself in his Attendance, or to gain any Sum of Money from the Government?

In a Word, is there any Man among you who has been guilty in any of the Premisses, or neglected any thing in his Power to heal his Patient by the easiest Method, so soon as possibly he could, or that according to the best of his Judgment, hath not endeavoured to save both Limb and Life?

Let him be Anathema.

Let him, I say, Gentlemen, and I am sure every Man of you, of any Credit or Repute, will join with me in your Amen;

Let him be Maranatha.

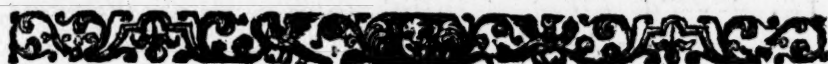
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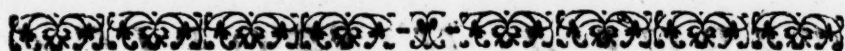
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